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ABSTRACT

This report describes a research project, developed by the American Council on Education, designed to study how students are affected by the colleges they attend. The survey instrument, a questionnaire, was administered to 185,848 first-time, full-time college students at 252 colleges and a sub-sample of these students for followup study purposes. The survey encompassed degree attainment, degree aspirations, educational persistence, academic achievement, educational financial support, field of study, life objectives, and attitudes. A 20-item bibliography, tables of responses, and appendices of research material are included. (MJM)

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Four Years After College Entry

Vol. 8, No. 1, 1973

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Four Years After College Entry

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HIGHLIGHTS

- Four years after college entry, only 37 percent of former freshmen who entered the nation's junior colleges, senior colleges, and universities in 1967 had not obtained at least an associate degree. One-half of the women (51 percent) and two-fifths of the men (41 percent) had obtained a bachelor's degree.

- Degree aspirations tended to increase among the former freshmen, and particularly among women, over the four years since college entry. In 1967, 43 percent of all freshmen aspired to a master's degree, a Ph.D., or an Ed.D.; in 1971, almost one-half (49 percent) of the same group aspired to this advanced degree level.

- Less than one in ten students consider themselves as having dropped out of college "permanently"; more than one-fourth, however, claimed that they had dropped out "temporarily" during the four year period.

- About two-fifths of those who initially entered a junior college, and one-fifth of those who entered a senior college or university, had transferred to another institution at some point during the four years after their entry to college.

- More than two-fifths of the students had overall grade point averages of "B" or better during their college career; only about one in twenty had an average of "C-" or less. Students enrolling in junior colleges tended to have lower grade point averages than their counterparts in senior college, and women consistently reported higher grade point averages than men at each type of institution.

- Most students (two-thirds) receive financial support from their parents for their undergraduate education, but more than half (56 percent) also helped support themselves through employment. Only one in ten had a Federal scholarship, fellowship, or grant; and less than one in five gained partial financial support through a Federal loan.

- During the undergraduate years, the choices of field of major study for the cohort shifted away from the professions, physical sciences, and engineering. The social sciences and education became more popular major fields of study between the freshman year in 1967 and four years later.

- Over the undergraduate years, students appear to become less inclined to strive for status and to seek financial success in later life. Instead, they increase their aspirations to succeed in artistic endeavors, and they become more inclined to want to be helpful to others.

- College freshmen generally become more liberal over the following four years with respect to both campus issues and wider social issues. In 1971, a majority of the former freshmen also believed that student evaluations should be used in administrative decisions regarding faculty (81 percent), and that undergraduate education would be improved if course work were made more relevant to contemporary living (72 percent) and if more attention were paid to the emotional growth of students (51 percent).

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Four Years After College Entry[1]

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For the past seven years the American Council on Education, through its Cooperative Institutional Research Program (CIRP), has conducted a large-scale annual survey of freshmen entering college. Following a 1961 prototype study of 127,000 entering freshmen and a 1965 pilot study of 42,000 entering freshmen, full-scale surveys of more than a quarter million entering students have been undertaken each year since 1966. Through 1972, about two million college freshmen had participated in the CIRP. Among the student participants, all full-time new freshmen enrolled in an institution providing representative or relatively complete coverage of the freshman student body were included in national norms compilations. National normative reports based on these compilations have been published annually by the American Council on Education.

The major purpose of this ongoing survey and research program is to determine how students are affected by the colleges they attend (Astin, Panos, and Creager, 1966). Consequently, subsamples of the original groups of participating students have been followed up periodically. The sample sizes and timetable of followup surveys to date are shown in Table 1. These followup surveys consist in part of post-tests on selected items previously completed in the Freshman Information Form, and in part of items that cover student experiences and achievements, aspirations and plans for the future, perceptions and evaluations of the college environment, and educational outcomes and academic standing.

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[1]Data collection for this report was supported by Grant OEC-0-71-2526(099) from the U.S. Office of Education. Data analysis was supported in part by Grants GI-34394 and C741 from the National Science Foundation. We are indebted to John A. Creager and Charles L. Sell for their contributions in the development of weights to be applied to these data for normative purposes.

Table 1

Timetable and Samples for ACE Freshman
Surveys and Followups: 1966-1972
(N's are approximate for number of students surveyed)

Entering Freshman Class (Cohort)	Number of Participants in Survey: Number of Participating Institutions	Number of Participants in Survey: Number of Freshmen Completing Questionnaires	Number of Participants Used in National Norms: Number of Institutions	Number of Participants Used in National Norms: Number of Freshmen	Date of Longitudinal Followups: Summer, 1967 (N=60K)	Summer, 1968 (N=60K)	Winter, 1969 (N=200K)	Summer, 1970 (N=60K)	Summer, 1971 (N=60K)	Fall, 1971 (N=60K)	Summer, 1972 (N=100K)
September, 1966	307	250K	251	210K	X	--	X	X	--	X	--
September, 1967	359	280K	252	190K	--	X	X	--	X	--	--
September, 1968	435	300K	358	240K	--	--	X	--	--	--	X
September, 1969	390	260K	270	170K	--	--	X	--	--	--	--
September, 1970	425	270K	275	180K	--	--	--	--	--	--	--
September, 1971	487	290K	326	170K	--	--	--	--	--	--	--
September, 1972	527	310K	373	190K	--	--	--	--	--	--	--

A series of analytical studies based on several of these followups have already been completed (e.g., see Astin, 1965; Astin, 1968; Astin, 1972; Astin and Panos, 1969; Bayer, 1972; Drew and Astin, 1972; Panos and Astin, 1968). Also completed are normative descriptive summaries based on the one-year followup of 1966 entering freshmen (Bayer et al., 1970) and on the four-year followup of the 1961 freshmen (Astin and Panos, 1969, Chapter 2). This normative report is another in the series and makes available the results of a more recent followup survey based on responses in 1971 by former freshmen who entered college in 1967.

In addition to providing normative summaries such as this, continuing effort is also being directed toward providing feedback of results to participating students and cooperating institutions. Major research emphasis focuses on analytical studies based on the results of the followup surveys and are designed to assess the impact of various college environments and experiences on student growth and development. (For a comprehensive review of the objectives and activities of the CIRP, see Kent, 1972.)

Sampling Design and Weighting Procedures

A total of 280,650 students at 359 colleges participated in the original survey of freshmen entering college in the fall of 1967. Because a number of participating institutions provided a sample of student respondents deemed unrepresentative of the institution's entire entering freshman class, weighted national normative tabulations were based on 185,848 first-time full-time freshmen from 252 institutions (46 junior or community colleges, 155 four-year colleges, and 51 universities).[2]

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[2]Institutions in the normative tabulations were arrayed into 29 stratification cells (based on type, control, size, and affluence) and differentially weighted to adjust for disproportionate sampling of institutions across cells. In addition, the data were further adjusted to correct for nonparticipation of students within institutions. For the normative results and for further details regarding the sampling design, see Panos, Astin, and Creager, 1967.

Followup Sample

For matters of economy in institutional research, and because it is generally not necessary in followup research to study the entire student body at large institutions, a subsample of students included in the national norms was drawn for a followup mailing to the students' homes. The followup sample included all students who had entered institutions enrolling fewer than 300 first-time freshmen in 1967, and samples of between 250 and 300 students (every Nth case on file) from the larger institutions. The resulting sample consisted of 63,510 former freshmen[3] to whom the initial followup questionnaire was mailed in July 1971.

A reminder postcard was sent out to the entire sample one week after the initial mailing. One month later, a second request and questionnaire was sent to all nonrespondents whose first mailing had not been returned as "nondeliverable."[4] After another three weeks, a one-fifth sample (every 5th case) of nonrespondents was selected for special delivery mailing of a third questionnaire.[5]

Of the 63,510 in the original mailing, 5,341 were found to either be deceased or to have nondeliverable addresses that could not be updated. Of the remaining 58,169 for whom mail contact might be assumed, valid and usable forms were received from 34,346 (59.0 percent).

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[3]Sample selection procedures described previously actually resulted in a subsample of 64,079, but 569 of these had provided no name and address for followup purposes. All mailings were first-class with live stamp.

[4]An attempt was made to update nondeliverable addresses through requests to the institutions at which the student was originally enrolled. All addresses updated by this means were again sent a questionnaire.

[5]An additional phase entailed a telephone followup survey of a subsample of nonrespondents to the special delivery mailing. Of the 2,790 who were selected for the telephone survey, which employed an abbreviated form of the questionnaire, information was collected either from the subject, his parent, or other relatives for 1,714 (61.4 percent); of the remaining 1,076, most were not contacted because no telephone number could be ascertained. These telephone respondents are omitted for all tabulations in this report.

Weighting Procedures[6]

For purposes of developing population estimates, the first step was to weight the respondent group of 34,346 up to the original sample of approximately 64,000 selected for the followup survey.[7] This was done through stepwise multiple regression analysis based on randomly selected subsamples from the original sample selected for survey. For each student, a dichotomously scored dependent variable was defined to indicate whether the student was a respondent or a nonrespondent. A large pool of items from the 1967 Freshman Information Form served as the independent variables. The final regression equation included all variables whose independent contribution yielded a significant reduction in the residual sums of squares of the dichotomous dependent variable.[8] Using the regression coefficients, an estimated probability of responding was computed and then divided into 1.0 to produce the appropriate weight for the subject (i.e., the reciprocal was calculated).

A second weight was then developed to adjust the weighted sample of approximately 64,000 to the initial 1967 freshman survey sample. In the case of small institutions (i.e., 1967 freshman enrollment less than 300), this weight equaled 1.0; in the case of large institutions, it is the reciprocal of the sampling fraction for followup selection. This weight raised the initial respondent group to represent the approximately 186,000 1967 freshmen included in the original normative sample.

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[6]For a more detailed discussion of similar weighting procedures for another data base, see Astin, 1970.

[7]The total sample selected for followup was actually split into two subsamples, one of which included all those selected for the special delivery mailing. Separate regression equations for this first step in the weighting procedures were developed for these two subsamples.

[8]Among the significant predictor variables were race, age, sex, high school grades, religion, and career aspirations.

A third weight, also employed for the freshman normative report, adjusts, by sex, for less than complete coverage of all 1967 first-time full-time freshmen within each of the 252 participating institutions included in the freshman norms. Typically, this weight is close to 1.0; in the case of an institution that administered the form to its entire 1967 freshman class, it is exactly 1.0. Its application yields counts that precisely match the freshman enrollment counts in each participating institution.

Finally, a fourth weight is calculated which is the ratio of the number of first-time full-time freshmen, by sex, in the entire population within each of the 29 cells of the 1967 stratification design to the number of freshmen entering the sample institutions within the cells.

The products of these weights adjust the initial followup sample of 34,346 up to approximately 1.3 million, which represents the total number of first-time full-time freshmen entering American higher education institutions in 1967. Consequently, the mean of the final weight is 37.8; the median is 23.4, and the interquartile range of the weights is 11.7 to 52.9. The followup sample counts, by sex and by the type of institution in which the students initially enrolled, and the corresponding population distribution estimates based on the weighting procedures described above, are shown in Table 2.

The Survey Form

The 1971 followup questionnaire was developed in conjunction with the U.S. Office of Education, Bureau of Educational Personnel Development, to meet, in part, the assessment requirements of the Education Professions Development Act of 1967. Consequently, substantial emphasis in content was placed on the training, aspirations, and plans of students intending to enter elementary or secondary school teaching. Indeed, half of the last page of the brief four-page followup form asked questions specific to those intending to teach at the elementary or secondary level.

Table 2

Numbers of Students Used in
Weighting Followup Norms

Type of Institution in Which Originally Enrolled	Unweighted N's (Followup Respondents)			Weighted N's		
	Men	Women	Total	Men	Women	Total
Two-Year College	2,806	2,507	5,313	244,711	157,017	401,728
Four-Year College	9,577	11,005	20,582	287,715	265,326	553,041
University	4,790	3,661	8,451	228,556	157,002	385,558
Total	17,173	17,173	34,346	760,982	579,345	1,340,327

Many of the remaining items focused on educational and employment activities since entering college, experiences during the college years, and future career plans and activities. A number of questions were repeated from the initial freshman survey form: career choice and choice of field of study, degree aspirations, and other selected aspirations and attitudes. A copy of the followup questionnaire is shown in Appendix A.

National Followup Norms

National normative data are reported on pages 21 through 29 and are presented by sex and for both sexes combined; these tabulations are subdivided by the basic type of institution in which the students initially enrolled for their first college term -- two-year colleges, four-year colleges, universities -- plus the total for all institutions combined. All figures are percentages based on the weighted marginal distributions of the responses from the followup sample. In some cases, percentages may not sum to exactly 100.0 within a group, due to rounding error; for some questions, respondents were asked to mark as many items of the question as was applicable, in which case the sum will be in excess of 100.0.

To report statistical indicators of precision for every percentage is impractical. However, some idea of the reliability of the reported data is important for comparative purposes. Appendix B offers some guidelines for judging the precision of the reported percentages.

Selection of Items for Norms

The last four questions on the followup survey, as noted above, were collected to meet specific informational requirements of the U.S. Office of Education. Because they were applicable to only a small proportion (about one-fifth) of the sample, responses to these questions and to an item on

practice teaching experience were not tabulated for normative purposes.[9] Nor were responses tabulated for undergraduate minor field of study, because a substantial proportion indicated they had no minor during their college years. Tabulations for all other items in the followup form shown in Appendix A are reported. In some cases, adjacent response categories have been combined for the purpose of more concise summary (e.g., "agree strongly" and "agree somewhat" responses have been combined for reporting percentages on attitudes toward social and campus issues). In the item on degree aspirations, the types of degrees have been rearranged into a hierarchical order and degree plans have been recalculated to reflect the highest degree planned at any future date rather than for specified year intervals.

Basis for Norms Calculations

The followup norms are based on all 1967 entrants to the American higher educational system, including dropouts, stopouts, and others who may be delayed in completing their education (e.g., because they took reduced course loads and thus lacked credits to graduate with their class; transferred between institutions, resulting in "lost" credit hours; or were enrolled in special curricula which generally require more than four years of study for completion of degree requirements). Indeed, after four years of college, the norms indicate that only 45 percent had received a bachelor's degree and 16 percent an associate degree.[10] However, 29 percent planned to attend college as an undergraduate (either full- or part-time) in the fall; and only 9 percent indicated they had no plans to obtain a college degree sometime in the future.

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[9]The U.S. Office of Education has contracted with the Bureau of Social Science Research (Washington, D.C.) for detailed analysis of these items.

[10]These figures are consistent with earlier studies of college completion rates after a comparable period. See, for example, Knoell (1964), Panos and Astin (1967), Sewell and Shah (1967), and Folger, Astin, and Bayer (1970, Chapter 5).

These degree aspirations after four years indicate that a substantial proportion of those who do not have a college degree may eventually get one. Indeed, these data on educational plans and aspirations, if fulfilled, would be consistent with Eckland's (1964a, 1964b) findings from a cohort of male entrants at the University of Illinois for a period of ten years. In his followup study it was found that approximately three-fourths eventually completed a college degree somewhere -- a much higher completion rate than has been generally assumed, based on most other studies of college persistence which have allowed shorter periods of time for students to complete their educational programs and do not always consider success rates of transfer students to other institutions.

In summary, those who have completed a degree by the time of this followup were undelayed students; a substantial proportion of the remainder are "delayed progress" students. Consequently, it was determined not to report normative results based on this followup survey for only those who had obtained a degree. Delayed and "normal" progress students have been shown to differ significantly (Eckland, 1964a); thus tabulations on degree recipients four years after college entry would present a distorted picture of the characteristics of degree recipients in general.

Normative data are therefore generally presented for the entire freshman class of 1967, including those who may prove to be permanent dropouts as well as those who have experienced various forms of delay previously identified (Schoenfeldt, Bayer, and Brown, 1970). An exception is made for computing normative percentages for graduate school aspirants. Two items on the followup questionnaire were specific to those who planned to attend graduate school: anticipated sources of support (question 7b); and intended graduate major field (question 12b). As noted in the followup normative tabulations, percentage calculations for these questions are restricted to those who had graduate school aspirations.

Treatment of Missing Data

In any survey, some respondents may be expected to skip particular questionnaire items. In some cases, nonrespondents to a particular item have been excluded from the percentage calculations; this procedure carries the implicit assumption that nonrespondents are distributed in a similar ratio as are respondents to the particular item categories. In other cases, logic dictated inclusion of nonrespondents in percentage calculations, either because skipping an item might imply a "not applicable" response, or a response in the negative to the item. In the normative tabulations, those items not designated by an asterisk include nonrespondents in the calculations.

Overview of Findings

The massive amount of information presented in the following pages precludes any comprehensive overview. Consequently, only selected highlights are given, drawn primarily from the followup responses of men and women who had entered any type of institution in the fall of 1967. When appropriate, however, comparison of followup responses are made with similar questions asked of the same cohort of students at the time of initial enrollment in college (see Panos, Astin, and Creager, 1967). To a great degree, these results are consistent with most earlier studies of smaller scale and more restricted generalizability, many of which have been summarized by Feldman and Newcomb (1969).

Degree Attainment. Degree attainment is a widely used measure of student "success" in the higher education system. However, as discussed above, attaining a degree after four years of college provides a very distorted picture of the proportion of beginning freshmen who will ultimately be "successful"; many more may be expected to graduate at some time in the future. Nevertheless, by four years after college entry, fully three-fifths of former freshmen have attained a college degree.

Consistent with other research on degree attainment within the half-decade after college entrance, women are significantly more likely than men to have completed a degree program. Indeed, regardless of where initially enrolled (two-year college, four-year college, university), women were consistently more likely than men to have obtained a bachelor's degree at the end of four years. Additionally, students entering a two-year institution were almost as successful in completing a degree as were students-in-general, although the former were much more likely to aspire to and complete a two-year associate degree rather than a baccalaureate.

Degree Aspirations. Despite the greater success of women than men to obtain a college degree within four years, a larger proportion of women (18.5 percent) than of men (11.8 percent) aspired to less than a baccalaureate degree (i.e., either "none" or associate only) in the followup. These sex differences are also consistent with similar data on degree aspirations at the time of college entry: In 1967, 13.7 percent of the women and 9.7 percent of the men stated plans for less than a baccalaureate degree.

On average, however, degree aspirations of both men and women, and particularly women, appear to have increased over the undergraduate years. In 1967, approximately two-fifths (42.9 percent) of the students stated that they planned to obtain either a master's degree or a doctorate (Ph.D. or Ed.D.). Four years later, almost one-half (48.7 percent) of the followup respondents from the same cohort reported similar aspirations. Most of this rise is demonstrated by the women: In 1967, 38.6 percent of women freshmen aspired to a master's degree, Ph.D., or Ed.D.; the comparable figure for women four years later is 50.2 percent. For men, the increase was from 46.2 percent to 47.7 percent.

Educational Persistence. Former 1967 freshman men were more likely than women to have been enrolled in college (either full- or part-time) as an

undergraduate in the spring term of 1971 (66.3 percent versus 60.9 percent) and to anticipate enrollment as an undergraduate for the 1971 fall term (34.5 percent versus 21.3 percent). This is at least in part attributable to the fact that women are more likely to have received a college degree within four years, but it also suggests that the sex differential in success as marked by degree attainment will likely narrow as the span of time since college entry increases.

Women, particularly those who initially entered a two-year institution, are also more likely than men to indicate, at the time of the 1971 followup, that they have permanently dropped out of college. But women are slightly less likely than men to indicate that they have either dropped out temporarily or have transferred to another college before graduating.

Academic Achievement. Overall, more than two-fifths (42.1 percent) of the sample report having received a "B" average or better as their overall grade point average during their college career; more than two-thirds (69.0 percent) report a comparable grade point average in their major subject during their college career.

Without exception, women in all types of institutions achieve higher grades than men. Moreover, almost twice as many men as women report having failed at least one course in college (43.2 percent versus 24.5 percent). Women were also more likely than men, in each type of institution, to have been elected to an academic honor society or to have graduated with honors.

While students who initially enrolled in two-year colleges were less likely than others to indicate they had failed at least one course during their college career, they also had lower grade point averages than those in either four-year colleges or universities.

Educational Financial Support. Two-thirds of the students received financial support from parents to subsidize their educational and living

expenses during their undergraduate years; more than half (56.1 percent) also reported that their own employment supported part of their educational expenses. Only one in ten (10.1 percent) drew support from Federal scholarships, fellowships, or grants; and one in five (19.0 percent) obtained Federal loans as a source of some financial support for their undergraduate education.

Among those planning to go to graduate school, reliance on parents for financial assistance drops to 18.7 percent; and fewer students plan to take out loans. However, 6.3 percent expect to receive a research assistantship, 13.4 percent a teaching assistantship, and more than three-fifths (61.5 percent) plan other employment as a means to finance their intended graduate education.

Field of Study. The comparison of probable major field of undergraduate study at entry to college in 1967, and actual undergraduate field of study as reported in the 1971 followup survey, is generally consistent with earlier research (see the review in Feldman and Newcomb, 1969). Specifically, drops in the proportions selecting the following majors are noted: Professional and health fields -- 11.9 percent in 1967 to 5.7 percent in 1971; physical sciences, mathematics and statistics -- 7.2 percent to 5.7 percent; and engineering -- 9.8 percent to 7.5 percent. Substantial increases are noted in the social sciences (psychology, sociology, anthropology, history, political science), from 14.5 percent in 1967 to 20.6 percent in 1971; and education, from 10.5 percent to 13.0 percent. In general, career aspirations tended to reflect similar shifts.

Life Objectives. During the four years since college entry, students have become less concerned with attainment of status and recognition. In 1967, two-thirds (67.8 percent) believed that it was essential or very important to become an authority in their field of specialization (51.0

percent in 1971); two-fifths (43.5 percent) thought it important to be very well-off financially (29.8 percent in 1971); and 46.4 percent believed that success in business was a particularly important objective in life (29.4 percent in 1971).

On the other hand, an increasing proportion (15.8 percent in 1967, 20.2 percent in 1971) considered the creation of works of art an important goal in life. The proportion feeling it important to help others in difficulty also increased over the four years: from 61.8 percent to 68.9 percent.

Attitudes. On most social and campus issues, more liberal attitudes prevail than at the time of entry to college. Again, this is consistent with most other longitudinal research findings regarding political, economic, and social liberalism (see the review in Feldman and Newcomb, 1969).

In 1967, more than one-half (56.6 percent) agreed that the activities of married women are best confined to the home and family; in 1971, less than one-fourth (23.5 percent) endorsed this position. On the issue of population growth, about two-fifths (42.2 percent) of freshmen agreed that parents should be discouraged from having large families; four years later, more than three-fourths (76.9 percent) agreed.

In 1971, however, there was less than unanimous opinion (39.4 percent) that open admissions should be adopted by all publicly-supported institutions; and between 1967 and 1971 the proportion who thought students from disadvantaged backgrounds should be given preferential treatment in college admissions dropped from 43.3 percent to 36.5 percent. On other college issues, however, students did take more liberal positions in 1971 than in 1967: The proportion thinking that student publications should be cleared by college officials dropped from 52.2 percent in 1967 to 30.2 percent in 1971; the proportion agreeing that college officials have been too lax in dealing with student protesters on campus dropped from 47.8 percent to 43.2 percent; and the proportion

endorsing the position that college officials have the right to ban persons with extreme views from speaking on campus dropped from 39.5 percent to 26.7 percent.

On most issues of instruction in higher education, many students endorsed the need for fundamental reform. Fully four-fifths (81.5 percent) believed that faculty promotions should be based in part on student evaluations (up from 62.2 percent in 1967). Moreover, 72.0 percent of the 1971 followup group thought that undergraduate education would be improved if course work were made more relevant to contemporary life and problems; and one-half (50.6 percent) thought that more attention should be paid to the emotional growth of students.

In conclusion, it should be noted that many of the changes summarized above also take place among individuals who have not attended college, although typically in lesser degree (Feldman and Newcomb, 1969, p. 327). The objective of the ACE Cooperative Institutional Research Program is to assess the extent to which such changes result from going to college itself, rather than from simply maturing in contemporary American society, and to assess what types of college environments and experiences tend to differentially influence the rates of change among different types of students.

Summary

The extensive descriptive data presented in this report do not allow a detailed overview. They do, however, permit the interested reader to compare the sexes and to compare students who initially enrolled in different types of institutions with respect to their college and work experiences, aspirations, and attitudes. Used in conjunction with the national normative data based on their responses as new college freshmen (Astin, Panos, and Creager, 1967), they provide insights into how young adults change over time, some of which change may in part be attributable to their college experiences.

The longitudinal information described in this report is also available to the general community of educational researchers through the ACE data accessing system (Bayer, Astin, Boruch, and Creager, 1969). The statistics presented here will allow the researcher to familiarize himself with the kinds of data available to him and the marginal distributions on particular variables with which he might be working.

Many persons connected with higher education have indicated that the ACE normative data published previously in this series have been highly useful. The data presented here should also be valuable to students and administrators concerned with establishing policies to improve the educational system and to researchers interested in exploring and testing theoretical and practical formulations to meet the same objectives.

1971 Survey Responses of 1967 College Freshmen,
by Sex and Type of Institution in Which Originally Enrolled

1971 Survey Responses of 1967 College Freshmen,
by Sex and Type of Institution in Which Originally Enrolled
(Weighted Percentages)

Item	Two-Year Colleges			Four-Year Colleges			Universities			Total, All Institutions		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
1(a) ACTIVITIES DURING PRECEEDING HALF YEAR (JANUARY - JUNE)												
Attending college, full time (undergraduate)	39.4	33.4	37.1	71.3	66.2	68.9	73.3	62.1	68.8	61.7	56.2	59.3
Attending college, part time (undergraduate)	7.3	6.3	6.9	3.3	3.7	3.5	3.4	4.7	4.0	4.5	4.7	4.7
Attending graduate school	0.5	0.4	0.5	1.4	1.8	1.6	2.1	2.6	2.3	1.3	1.6	1.5
Having a temporary college interruption (illness, etc.)	3.6	4.4	3.9	2.7	2.8	2.7	2.7	3.2	2.9	3.0	3.3	3.1
Attending night school, adult education	3.6	3.0	3.4	0.9	0.9	0.9	0.8	1.2	1.0	1.8	1.6	1.7
Attending a school other than a college or university	2.0	1.5	1.8	1.0	1.5	1.3	0.9	1.2	1.0	1.3	1.4	1.4
Working part time	15.3	13.6	14.6	19.2	19.5	19.3	21.0	20.5	20.8	18.5	18.2	18.4
Working full time	35.6	39.8	37.2	15.7	19.2	17.4	14.2	21.6	17.2	21.7	25.4	23.3
In military service, active duty	16.1	0.3	9.9	7.6	0.1	4.0	7.6	0.4	4.6	10.3	0.2	6.0
Being a housewife	0.2	26.5	10.5	0.1	16.4	7.9	0.0+	18.8	7.7	0.1	19.8	8.6
Being unemployed, looking for a job	4.0	4.4	4.2	2.9	3.9	3.4	2.5	3.1	2.7	3.1	3.8	3.4
Being unemployed, not looking for a job	2.4	5.2	3.5	1.8	3.7	2.7	3.0	4.6	3.7	2.4	4.3	3.2
(No answer)	5.4	3.3	4.6	4.1	1.6	2.9	2.5	1.6	2.1	4.1	2.0	3.2
1(b) ACTIVITIES EXPECTED DURING LATTER PART OF YEAR (SEPTEMBER - DECEMBER)												
Attending college, full time (undergraduate)	28.0	16.3	23.5	25.4	13.9	19.8	29.7	17.4	24.7	27.5	15.5	22.3
Attending college, part time (undergraduate)	10.7	8.7	10.0	5.7	4.4	5.1	4.7	5.0	4.8	7.0	5.8	6.5
Attending graduate school	3.7	3.3	3.5	16.5	12.5	14.6	18.2	11.8	15.6	12.9	9.8	11.6
Having a temporary college interruption (illness, etc.)	2.6	3.1	2.8	2.1	1.7	1.9	2.3	1.5	2.0	2.3	2.0	2.2
Attending night school, adult education	5.0	5.5	5.2	2.5	3.6	3.0	1.7	3.3	2.3	3.0	4.0	3.5
Attending a school other than a college or university	2.3	1.5	1.9	1.9	2.1	2.0	1.8	1.9	1.8	2.0	1.9	2.0
Working part time	14.7	11.2	13.3	14.0	12.8	13.4	17.9	13.9	16.3	15.4	12.6	14.2
Working full time	39.0	47.1	42.2	36.6	51.1	43.6	30.4	49.0	38.0	35.5	49.4	41.5
In military service, active duty	14.2	0.5	8.8	12.4	0.4	6.7	12.2	0.5	7.4	12.9	0.4	7.5
Being a housewife	0.3	27.7	11.0	0.1	21.6	10.4	0.1	24.0	9.8	0.1	23.9	10.4
Being unemployed, looking for a job	5.3	6.0	5.6	5.9	11.2	8.4	6.0	8.8	7.1	5.7	9.1	7.2
Being unemployed, not looking for a job	1.9	5.0	3.1	2.2	3.9	3.0	3.4	5.2	4.1	2.5	4.5	3.4
(No answer)	7.8	6.3	7.2	5.6	4.2	4.9	4.1	3.6	3.9	5.9	4.6	5.3
2(a) EXPECTED EMPLOYER FOR FALL OF CURRENT YEAR												
Government:												
Federal (incl. military)	16.3	2.0	10.7	15.2	3.2	9.4	14.9	3.6	10.3	15.4	3.0	10.1
State and local	7.8	8.1	7.9	4.8	7.6	6.1	5.1	7.5	6.1	5.8	7.7	6.7
Education:												
Preschool and/or kindergarten	0.3	2.2	1.0	0.3	2.1	1.2	0.1	1.7	0.7	0.2	2.0	1.0
Elementary school	1.5	7.5	3.9	1.8	15.6	8.4	0.6	9.7	4.3	1.4	11.8	5.9
Junior high school	1.2	1.9	1.5	2.7	5.5	4.0	1.1	3.5	2.1	1.7	4.0	2.7
Senior high school	2.0	2.7	2.3	3.6	7.5	5.4	2.0	4.7	3.1	2.6	5.4	3.8
Junior or community college	2.4	1.1	1.9	0.5	0.3	0.4	0.1	0.2	0.2	1.0	0.5	0.8
Four-year college or university	4.9	2.9	4.1	6.2	4.2	5.2	7.0	6.0	6.6	6.0	4.3	5.3
Other non-profit organizations:												
Hospital, clinic	2.1	9.3	4.9	1.9	6.0	3.9	1.5	7.8	4.0	1.8	7.4	4.2
Social welfare or community agency	0.7	1.3	0.9	1.4	2.7	2.0	0.8	2.4	1.4	1.0	2.2	1.5
Church	0.7	1.2	0.9	0.9	1.1	1.0	0.7	0.5	0.6	0.8	1.0	0.9
Other non-profit organization	1.4	1.3	1.4	1.1	1.7	1.4	1.4	1.2	1.3	1.3	1.5	1.4
Business, industry and services:												
Self-employed	5.7	1.9	4.2	3.3	1.0	2.2	4.0	1.4	3.0	4.3	1.4	3.0
Small company (up to 1000 employees)	23.7	16.8	21.0	16.7	12.6	14.7	18.3	14.8	16.9	19.4	14.3	17.2
Large company (more than 1000 employees)	15.4	13.4	14.6	14.2	9.7	12.1	11.6	9.6	10.8	13.8	10.7	12.5
Other (incl. student, housewife)	12.6	27.2	18.3	18.1	24.3	21.1	22.3	27.7	24.5	17.6	26.0	21.2
None (do not plan to work)	4.0	7.3	5.3	6.5	5.4	6.0	7.7	6.4	7.2	6.1	6.2	6.1
(No answer)	11.9	9.3	10.9	12.0	9.8	11.0	11.0	9.1	10.2	11.7	9.5	10.7
2(b) EXPECTED LONG-RUN CAREER EMPLOYER												
Government:												
Federal (incl. military)	6.4	2.7	5.0	9.7	4.5	7.2	10.3	5.4	8.3	8.8	4.3	6.9
State and local	10.7	6.9	9.2	7.5	8.0	7.7	6.3	7.1	6.6	8.1	7.5	7.9
Education:												
Preschool and/or kindergarten	0.4	4.1	1.8	0.3	4.7	2.4	0.3	3.3	1.5	0.3	4.2	2.0
Elementary school	2.0	14.5	6.9	2.7	22.6	12.2	1.2	16.1	7.3	2.0	18.6	9.2
Junior high school	2.3	2.6	2.4	2.9	6.1	4.4	1.4	5.6	3.1	2.2	5.0	3.4
Senior high school	7.5	8.6	7.9	11.2	15.6	13.4	6.7	14.6	9.9	8.7	13.4	10.7
Junior or community college	5.2	2.7	4.2	3.1	2.9	3.0	2.5	2.9	2.6	3.6	2.8	3.3
Four-year college or university	4.7	2.4	3.8	9.9	6.9	8.5	8.6	7.3	8.1	7.8	5.8	7.0
Other non-profit organizations:												
Hospital, clinic	3.7	11.7	6.8	4.0	9.0	6.4	4.3	12.7	7.7	4.0	10.7	6.9
Social welfare or community agency	2.6	4.5	3.3	3.9	7.2	5.5	2.7	7.8	4.8	3.2	6.6	4.6
Church	1.3	1.5	1.4	1.9	1.3	1.6	1.2	1.1	1.2	1.5	1.3	1.4
Other non-profit organization	1.7	1.6	1.7	1.8	2.4	2.1	2.0	2.7	2.3	1.8	2.2	2.0
Business, industry and services:												
Self-employed	18.6	2.5	12.3	18.6	3.9	11.6	24.2	4.9	16.3	20.3	3.8	13.2
Small company (up to 1000 employees)	17.3	8.2	13.7	14.5	6.3	10.5	18.8	9.1	14.8	16.7	7.6	12.7
Large company (more than 1000 employees)	22.4	9.6	17.4	20.6	7.1	14.1	21.3	9.0	16.3	21.4	8.3	15.7
Other (incl. student, housewife)	3.9	26.5	12.7	3.3	24.0	13.2	4.6	24.3	12.6	3.9	24.7	12.9
None (do not plan to work)	0.9	3.7	2.0	0.9	2.2	1.6	1.0	2.5	1.6	0.9	2.7	1.7
(No answer)	13.8	11.6	12.9	11.9	7.6	9.9	10.4	7.7	9.3	12.1	8.7	10.6

1971 Survey Responses of 1967 College Freshmen,
by Sex and Type of Institution in Which Originally Enrolled
(Weighted Percentages)

	Item	Two-Year Colleges			Four-Year Colleges			Universities			Total, All Institutions		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
3(a)	EXPECTED WORK FUNCTIONS FOR FALL OF CURRENT YEAR												
	Teaching	5.4	14.7	9.1	10.4	31.5	20.5	6.1	21.4	12.3	7.5	24.2	14.7
	Research	4.5	1.3	3.3	5.5	3.2	4.4	5.9	4.2	5.2	5.3	3.0	4.3
	Administration	8.6	8.9	8.7	10.2	6.6	8.5	9.8	6.8	8.6	9.6	7.3	8.6
	Sales	9.0	6.7	8.1	8.1	6.2	7.2	8.1	6.3	7.4	8.4	6.4	7.5
	Service to clients or patients	16.8	23.9	19.6	13.1	19.1	16.0	13.0	25.2	18.0	14.2	22.1	17.6
	None of the above (e.g., studying, homemaking)	44.7	39.5	42.7	45.2	33.5	39.6	52.3	37.6	46.3	47.2	36.3	42.5
	(No answer)	16.5	11.5	14.5	13.5	8.0	10.9	11.6	7.5	9.9	13.9	8.8	11.7
3(b)	EXPECTED WORK FUNCTIONS FOR LONG-RUN CAREER												
	Teaching	18.4	32.2	23.8	25.7	49.2	37.0	19.4	42.6	28.8	21.5	42.8	30.7
	Research	13.2	4.3	9.7	14.3	7.9	11.2	16.5	9.7	13.7	14.6	7.4	11.5
	Administration	21.3	9.4	16.6	26.3	8.9	18.0	27.1	9.3	19.9	24.9	9.2	18.1
	Sales	9.0	2.7	6.5	7.3	2.5	5.0	8.6	3.0	6.3	8.2	2.7	5.8
	Service to clients or patients	24.9	25.0	24.9	27.2	22.2	24.8	33.2	31.8	32.6	28.2	25.6	27.1
	None of the above (e.g., studying, homemaking)	17.2	31.9	22.9	11.3	25.2	18.0	11.9	24.9	17.2	13.4	26.9	19.2
	(No answer)	12.1	8.8	10.8	8.2	5.1	6.7	7.2	4.0	5.9	9.2	5.8	7.7
4	PROBABLE CAREER OCCUPATION*												
	Accountant or actuary	4.0	2.0	3.2	3.5	0.7	2.2	4.0	1.2	2.8	3.8	1.2	2.7
	Actor or entertainer	0.5	0.4	0.5	0.4	0.5	0.4	0.2	0.4	0.3	0.3	0.4	0.4
	Architect	1.9	0.1	1.2	0.9	0.2	0.5	1.8	0.1	1.1	1.5	0.1	0.9
	Artist	1.2	1.7	1.4	1.3	2.4	1.8	1.3	2.5	1.8	1.3	2.3	1.7
	Business (clerical)	1.0	12.7	5.6	0.3	4.1	2.1	0.5	3.9	1.9	0.6	6.3	3.1
	Business executive	8.3	1.4	5.6	10.3	1.4	6.0	11.7	1.7	7.7	10.1	1.5	6.4
	Business owner or proprietor	5.8	0.4	3.7	4.5	0.5	2.6	3.0	0.4	2.0	4.5	0.5	2.7
	Business salesman or buyer	3.0	1.2	2.3	2.2	0.6	1.4	2.5	1.0	1.9	2.6	0.9	1.8
	Clergyman (minister, priest)	0.5	0.2	0.4	1.1	0.0+	0.6	0.6	0.1	0.4	0.8	0.1	0.5
	Clergy (other religious)	0.2	0.5	0.3	0.5	0.2	0.4	0.4	0.3	0.3	0.4	0.3	0.3
	Clinical psychologist	1.1	0.7	1.0	1.7	1.2	1.5	1.1	1.2	1.2	1.3	1.1	1.2
	College teacher	2.5	0.6	1.8	4.6	3.4	4.0	4.1	3.0	3.7	3.8	2.5	3.3
	Computer programmer	2.7	0.7	1.9	1.4	1.1	1.3	1.2	1.1	1.2	1.8	1.0	1.4
	Conservationist or forester	2.0	0.1	1.3	1.2	0.2	0.7	1.4	0.1	0.9	1.5	0.1	0.9
	Dentist (including orthodontist)	0.6	0.0+	0.4	1.1	0.0+	0.6	1.6	0.1	1.0	1.1	0.1	0.6
	Dietitian or home economist	0.0+	1.1	0.4	0.1	0.7	0.4	0.0+	1.4	0.5	0.0+	1.0	0.4
	Engineer	9.1	0.0+	5.5	8.2	0.1	4.3	9.4	0.3	5.7	8.9	0.1	5.1
	Farmer or rancher	2.5	0.2	1.6	1.4	0.1	0.8	2.6	0.2	1.6	2.1	0.1	1.3
	Foreign Service worker (including diplomat)	0.1	0.4	0.2	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.4	0.3
	Housewife	0.0+	17.1	6.7	0.1	9.8	4.8	0.0+	9.1	3.7	0.1	11.6	5.0
	Interior decorator/designer	0.3	0.5	0.4	0.0+	0.5	0.3	0.1	1.0	0.5	0.2	0.6	0.4
	Interpreter (translator)	0.0+	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.1
	Lab technician or hygienist	0.7	2.1	1.2	0.4	1.6	1.0	0.3	2.6	1.2	0.4	2.0	1.1
	Law enforcement officer	2.7	0.2	1.7	0.7	0.0+	0.4	1.0	0.1	0.6	1.4	0.1	0.8
	Lawyer (attorney)	2.7	0.0+	1.6	6.5	0.8	3.8	8.8	1.6	5.9	6.0	0.8	3.7
	Military service (career)	0.9	0.1	0.5	1.9	0.1	1.0	2.0	0.0+	1.2	1.6	0.1	0.9
	Musician (performer, composer)	0.8	0.3	0.6	0.8	0.6	0.7	1.0	0.4	0.7	0.8	0.5	0.7
	Nurse	0.4	7.8	3.3	0.1	3.3	1.7	0.1	5.9	2.4	0.2	5.2	2.4
	Optometrist	0.1	0.0+	0.1	0.1	0.0+	0.0+	0.1	0.0+	0.1	0.1	0.0+	0.1
	Pharmacist	0.4	0.1	0.3	0.4	0.1	0.3	0.8	0.3	0.6	0.5	0.1	0.4
	Physician	0.6	0.2	0.5	3.0	0.6	1.8	4.4	0.9	3.0	2.7	0.6	1.8
	School counselor	0.6	0.8	0.7	0.8	1.1	1.0	0.3	1.0	0.6	0.6	1.0	0.8
	School principal/superintendent	0.1	0.0+	0.1	0.8	0.1	0.5	0.4	0.1	0.3	0.4	0.1	0.3
	Scientific researcher	1.7	0.3	1.1	3.1	1.1	2.2	2.9	1.6	2.4	2.6	1.0	1.9
	Social worker	1.4	3.2	2.1	2.1	4.3	3.2	1.3	4.6	2.6	1.6	4.1	2.7
	Statistician	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.1	0.2	0.2	0.1	0.2
	Therapist (physical, occupational, speech)	1.1	1.1	1.1	0.5	1.7	1.1	0.3	2.1	1.1	0.6	1.7	1.1
	Teacher (elementary)	1.9	17.1	7.9	2.3	24.5	13.0	0.9	16.5	7.2	1.7	20.4	9.8
	Teacher (secondary)	8.9	10.1	9.4	11.9	17.1	14.4	6.7	15.3	10.2	9.4	14.8	11.7
	Veterinarian	0.3	0.2	0.3	0.4	0.1	0.3	0.5	0.1	0.4	0.4	0.1	0.3
	Writer or journalist	0.8	0.7	0.8	1.6	1.3	1.5	2.0	2.3	2.2	1.5	1.4	1.5
	Skilled trades	8.8	1.2	5.8	3.0	0.4	1.8	2.6	0.8	1.9	4.7	0.7	3.0
	Other	9.8	7.1	8.7	6.3	6.0	6.2	6.4	7.6	6.9	7.5	6.7	7.1
	Undecided	7.9	5.2	6.9	7.6	6.4	7.0	8.9	6.3	7.9	8.1	6.1	7.2
5(a)	PROBABLE PLACE OF HOME IN FALL OF CURRENT YEAR*												
	On a farm	5.4	3.3	4.6	3.4	2.9	3.1	3.9	2.8	3.5	4.2	2.9	3.6
	In a small town	25.1	22.3	23.9	22.8	21.0	21.9	17.2	17.9	17.5	21.8	20.5	21.2
	In a moderate or large size town or city	35.3	37.0	36.0	34.4	34.0	34.2	35.1	34.5	34.8	34.9	34.9	34.9
	In a metropolitan area, central city	11.5	12.7	12.0	17.9	18.3	18.1	19.7	19.9	19.8	16.4	17.2	16.8
	In a metropolitan area, suburb	22.7	24.7	23.5	21.5	23.9	22.7	24.0	24.9	24.4	22.7	24.4	23.4
5(b)	PROBABLE PLACE OF WORK IN FALL OF CURRENT YEAR*												
	On a farm	3.2	1.1	2.4	1.5	0.6	1.1	2.9	1.0	2.1	2.5	0.9	1.8
	In a small town	18.5	18.8	18.6	19.4	20.3	19.8	15.1	17.3	16.1	17.8	19.1	18.4
	In a moderate or large size town or city	40.4	41.4	40.8	37.2	35.6	36.4	36.8	35.3	36.2	38.1	37.1	37.6
	In a metropolitan area, central city	20.8	22.1	21.3	27.2	26.5	26.8	31.1	30.8	31.0	26.3	26.5	26.4
	In a metropolitan area, suburb	17.2	16.6	17.0	14.7	17.0	15.8	14.1	15.5	14.7	15.3	16.5	15.8

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(Weighted Percentages)

	Item	Two-Year Colleges			Four-Year Colleges			Universities			Total, All Institutions		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
6	PERCENT REPORTING "VERY IMPORTANT" REASON FOR CAREER CHOICE*												
	Job openings are generally available	28.5	29.4	28.9	22.2	23.3	22.8	18.5	24.3	20.9	23.1	25.2	24.0
	I enjoy working with the kind of people involved	58.5	79.6	66.8	62.3	80.6	71.2	58.9	79.0	67.2	60.0	79.9	68.8
	This is a well-paying career	33.5	24.0	29.8	26.6	15.4	21.2	27.3	16.0	22.7	29.0	17.8	24.1
	Persons in this career are less vulnerable to military service	2.4	1.6	2.1	2.3	0.7	1.5	2.2	0.6	1.5	2.3	0.9	1.7
	This choice satisfies my parents' hopes	2.8	5.0	3.6	2.3	3.2	2.8	2.0	3.4	2.6	2.3	3.7	3.0
	I feel this enables me to make an important contribution to society	35.3	46.9	39.8	43.0	52.9	47.8	40.6	51.2	45.0	39.8	50.9	44.6
	There are opportunities for rapid career advancement	35.1	18.1	28.5	30.5	12.0	21.6	29.7	11.5	22.3	31.8	13.4	23.8
	There are opportunities for freedom of action	56.0	39.9	49.7	60.6	46.0	53.5	64.5	49.6	58.4	60.3	45.4	53.8
7(a)	SOURCE OF FINANCING UNDERGRADUATE YEARS												
	Support from your parents	46.4	59.8	51.6	65.7	78.6	71.9	69.5	82.5	74.8	60.6	74.5	66.6
	Support from your spouse	8.5	11.8	9.8	6.1	10.0	7.9	8.5	11.4	9.7	7.6	10.8	9.0
	Federal scholarship, fellowship, or grant	7.5	6.3	6.9	12.1	11.2	11.7	12.1	9.5	11.0	10.6	9.3	10.1
	State scholarship, fellowship, or grant	10.3	12.2	11.0	19.1	24.2	21.5	10.8	12.3	11.4	13.8	17.7	15.5
	Other scholarship, fellowship, or grant	9.5	13.3	10.9	18.3	19.0	18.7	18.8	18.7	18.8	15.6	17.3	16.3
	Federal loan	15.7	13.5	14.8	20.8	22.2	21.5	19.4	20.3	19.8	18.7	19.3	19.0
	Other loan	12.3	12.1	12.2	15.9	16.4	16.2	9.7	9.1	9.4	12.9	13.3	13.0
	College work-study program	7.5	11.3	9.0	15.2	17.1	16.1	10.5	12.2	11.2	11.3	14.2	12.5
	Research assistantship	0.1	0.1	0.1	0.6	0.3	0.4	1.1	0.6	0.9	0.6	0.3	0.5
	Teaching assistantship	0.8	0.5	0.7	1.0	0.9	0.9	1.0	0.4	0.8	0.9	0.7	0.8
	Employment	61.7	47.0	56.0	58.7	48.8	54.0	64.3	52.3	59.4	61.4	49.3	56.1
	Other sources (savings, etc.)	35.4	30.7	33.6	33.8	29.3	31.6	37.3	30.8	34.7	35.4	30.1	33.1
	(No answer)	8.5	9.0	8.7	4.2	3.2	3.7	3.2	2.8	3.1	5.3	4.7	5.0
7(b)	SOURCE OF FINANCING GRADUATE EDUCATION* (GRADUATE SCHOOL ASPIRANTS ONLY)												
	Support from your parents	13.1	12.6	12.9	20.7	15.2	18.2	28.9	17.3	24.5	21.1	15.2	18.7
	Support from your spouse	14.4	26.7	18.6	15.9	25.4	20.2	18.5	25.5	21.2	16.3	25.7	20.1
	Federal scholarship, fellowship, or grant	11.3	7.5	10.0	14.6	11.2	13.1	15.7	12.9	14.6	14.1	10.9	12.8
	State scholarship, fellowship, or grant	6.9	7.9	7.3	9.5	7.7	8.7	7.6	8.4	7.9	8.2	8.0	8.1
	Other scholarship, fellowship, or grant	14.3	14.9	14.5	19.7	15.8	17.9	18.3	18.3	18.3	17.8	16.3	17.2
	Federal loan	14.0	9.1	12.3	12.6	8.4	10.7	14.5	9.0	12.4	13.6	8.7	11.6
	Other loan	11.0	8.9	10.3	12.1	9.1	10.7	9.5	8.3	9.0	11.0	8.8	10.1
	College work-study program	5.0	4.7	4.9	5.5	4.1	4.9	5.2	5.4	5.3	5.3	4.6	5.0
	Research assistantship	4.4	2.6	3.8	7.6	4.9	6.4	9.5	6.3	8.3	7.3	4.8	6.3
	Teaching assistantship	8.6	7.1	8.1	13.7	15.6	14.6	15.1	17.6	16.1	12.7	14.4	13.4
	Employment	65.1	57.9	62.7	59.1	62.6	60.7	60.7	63.4	61.8	61.3	61.8	61.5
	Other sources (savings, etc.)	35.5	31.0	33.9	36.6	36.0	36.4	33.7	34.0	33.8	35.4	34.4	35.0
8	PERCENT INDICATING EVENTS EXPERIENCED SINCE ENTERING COLLEGE												
	Got married	30.2	39.8	34.0	25.2	33.4	29.1	25.0	37.6	30.1	26.8	36.2	30.9
	Changed major field	40.4	27.7	35.4	44.5	38.3	41.5	48.7	44.3	46.9	44.4	37.1	41.3
	Changed career choice	40.2	33.6	37.6	44.6	37.9	41.4	46.3	43.2	45.1	43.7	38.2	41.3
	Failed one or more courses	39.9	21.0	32.5	44.9	24.7	35.2	44.7	27.8	37.8	43.2	24.5	35.2
	Graduated with honors	5.7	9.9	7.3	10.6	14.5	12.5	12.2	17.2	14.2	9.5	14.0	11.4
	Was elected to a student office	8.7	12.3	10.1	17.7	20.3	19.0	12.9	14.6	13.6	13.4	16.6	14.8
	Joined a social fraternity, sorority, or club	21.2	25.5	22.9	39.3	37.3	38.4	37.7	35.0	36.6	33.0	33.5	33.2
	Authored or co-authored a published article	4.5	3.4	4.1	8.7	6.2	7.5	6.8	5.1	6.1	6.8	5.1	6.1
	Was elected to an academic honor society	5.5	9.2	7.0	11.6	16.1	13.8	14.4	18.8	16.2	10.5	15.0	12.4
	Participated in student protests or demonstrations	14.3	9.1	12.2	28.6	27.0	27.8	30.1	24.5	27.8	24.5	21.4	23.2
	Dropped out of college temporarily (exclude transferring)	40.5	29.9	36.4	23.8	20.3	22.1	25.0	25.7	25.3	29.5	24.4	27.3
	Dropped out of college permanently	10.9	15.8	12.8	4.5	9.0	6.7	4.5	8.6	6.2	6.6	10.7	8.4
	Transferred to another college before graduating	40.0	34.4	37.8	21.3	22.5	21.9	18.0	19.6	18.6	26.3	25.0	25.7

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	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
9(a) HIGHEST DEGREE NOW HELD*												
None	39.7	35.7	38.1	39.2	29.3	34.3	44.1	35.7	40.6	40.8	32.8	37.3
Associate (or equivalent) (A.A., A.S., etc.)	41.7	40.8	41.3	5.4	5.0	5.2	4.7	5.5	5.0	16.9	14.7	15.9
Other	1.7	2.8	2.1	0.7	1.5	1.1	0.5	1.8	1.0	0.9	1.9	1.4
Bachelor's Degree (A.B., B.A., B.S., etc.)	16.8	20.7	18.3	54.5	64.1	59.2	50.6	56.8	53.2	41.2	50.6	45.4
B.D. (Divinity)	0.1	0.0+	0.1	0.0+	0.0+	0.0+	0.1	0.0+	0.0+	0.1	0.0+	0.0+
LL.B. or J.D. (Law)	0.1	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+
Master's Degree (M.A., M.S., etc.)	0.0+	0.1	0.0+	0.0+	0.1	0.1	0.1	0.1	0.1	0.0+	0.1	0.1
Ph.D. or Ed.D.	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+
M.D., D.D.S., D.V.M. or D.O.	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+
9(a-d) HIGHEST DEGREE INTENDED AT ANY TIME IN THE FUTURE*												
None	10.9	18.0	13.7	5.0	9.0	6.9	5.6	9.5	7.2	7.1	11.5	9.0
Associate (or equivalent) (A.A., A.S., etc.)	11.5	19.5	14.7	1.5	2.2	1.8	1.7	2.8	2.2	4.7	7.0	5.7
Other	2.4	3.0	2.6	0.7	1.7	1.2	0.8	1.7	1.2	1.3	2.1	1.6
Bachelor's Degree (A.B., B.A., B.S., etc.)	31.6	28.6	30.4	24.5	24.4	24.2	28.9	30.7	29.6	28.1	27.2	27.7
B.D. (Divinity)	0.3	0.0+	0.2	0.7	0.1	0.4	0.6	0.1	0.4	0.5	0.1	0.3
LL.B. or J.D. (Law)	2.9	0.1	1.8	6.1	0.8	3.6	9.0	1.3	5.9	6.0	0.7	3.7
Master's Degree (M.A., M.S., etc.)	29.1	26.2	28.0	38.1	48.1	43.0	31.9	42.2	36.1	33.4	40.7	36.5
Ph.D. or Ed.D.	9.2	4.1	7.1	18.4	12.4	15.5	14.5	10.0	12.6	14.3	9.5	12.2
M.D., D.D.S., D.V.M. or D.O.	2.1	0.5	1.5	5.0	1.3	3.2	7.0	1.6	4.8	4.7	1.2	3.1
10 PERCENT REPORTING "FREQUENTLY" OR "OCCASIONALLY" DISCUSSED FUTURE WITH OTHER PERSON*												
College advisor	57.9	60.0	58.7	62.0	65.2	63.6	61.9	64.4	63.0	60.7	63.6	62.0
Academic dean	13.4	14.9	14.0	17.8	17.4	17.5	17.8	15.7	16.9	16.5	16.3	16.4
Residence hall counselor	7.4	8.7	7.9	14.3	17.8	16.0	14.6	16.4	15.3	12.3	15.2	13.6
Guidance counselor	43.6	45.8	44.5	29.3	28.9	29.1	24.1	25.1	24.5	32.1	32.1	32.1
Friend	92.7	93.3	92.9	94.9	97.0	95.9	95.7	96.2	95.8	94.4	95.7	95.0
Professor or instructor	62.8	62.4	62.6	75.3	76.9	76.1	69.1	69.4	69.2	69.5	71.2	70.3
Placement counselor or director	27.3	27.1	27.2	23.8	29.0	26.4	18.7	21.6	19.9	23.3	26.5	24.6
Family member or spouse	89.2	90.5	89.7	89.8	93.2	91.5	89.1	93.9	91.0	89.4	92.7	90.9
Dean of men or women	5.8	8.7	6.9	11.4	11.5	11.4	5.0	6.0	5.3	7.7	9.3	8.4
Counselor in non-university agency	10.9	7.4	9.6	8.4	8.1	8.3	7.6	8.2	7.8	8.9	7.9	8.5
Person employed in my intended field	69.2	65.9	68.0	71.8	73.2	72.5	71.2	72.5	71.7	70.8	71.2	70.9
Other	48.6	37.9	44.6	49.3	43.7	46.7	46.4	43.1	45.1	48.2	42.1	45.7
11(a) OVER-ALL GRADE POINT AVERAGE DURING COLLEGE CAREER*												
3.75-4.00 (A or A+)	0.8	1.6	1.1	1.4	2.7	2.0	2.1	3.3	2.6	1.4	2.6	1.9
3.25-3.74 (A- or B+)	5.3	10.8	7.4	10.0	17.0	13.3	12.8	20.2	15.8	9.3	16.2	12.3
2.75-3.24 (B)	19.6	28.4	23.1	25.5	34.0	29.6	28.1	33.5	30.3	24.4	32.4	27.9
2.25-2.74 (B- or C+)	34.5	33.0	33.9	35.3	31.0	33.2	31.8	27.2	29.9	34.0	30.5	32.5
1.75-2.24 (C)	29.5	20.8	26.1	21.4	12.0	16.9	18.3	11.8	15.6	23.0	14.3	19.2
1.25-1.74 (C- or D+)	7.6	4.2	6.3	4.6	2.8	3.7	4.9	3.0	4.1	5.6	3.2	4.6
Less than 1.25 (D or less)	2.7	1.3	2.1	1.8	0.6	1.2	2.1	1.0	1.7	2.2	0.9	1.6
11(b) GRADE POINT AVERAGE IN MAJOR SUBJECT DURING COLLEGE CAREER*												
3.75-4.00 (A or A+)	5.8	9.2	7.1	7.6	10.4	8.9	9.4	12.7	10.8	7.6	10.7	9.0
3.25-3.74 (A- or B+)	16.7	22.6	19.0	23.6	33.1	28.2	24.8	35.5	29.1	21.9	31.1	25.9
2.75-3.24 (B)	33.7	33.6	33.7	34.2	35.1	34.6	34.2	32.8	33.6	34.0	34.1	34.1
2.25-2.74 (B- or C+)	23.7	21.0	22.6	22.3	14.6	18.5	18.5	12.1	15.9	21.5	15.5	18.9
1.75-2.24 (C)	16.6	11.4	14.6	9.4	5.4	7.5	9.9	5.1	8.0	11.7	6.9	9.6
1.25-1.75 (C- or D+)	2.4	1.4	2.0	2.0	1.2	1.6	1.9	1.2	1.6	2.1	1.2	1.7
Less than 1.25 (D or less)	1.1	0.7	0.9	1.0	0.3	0.7	1.3	0.6	1.0	1.1	0.5	0.8

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12(a)	CURRENT OR LAST UNDERGRADUATE MAJOR FIELD OF STUDY*												
	Arts and Humanities												
	Architecture	2.9	0.0+	1.8	0.9	0.2	0.6	2.3	0.2	1.4	1.9	0.2	1.2
	English (literature)	1.6	6.2	3.4	4.7	11.1	7.8	3.9	9.2	6.1	3.5	9.3	6.0
	Fine arts	2.0	4.1	2.8	1.9	5.5	3.6	1.6	4.7	2.9	1.8	4.9	3.2
	History	3.3	2.5	3.0	4.7	2.5	3.6	3.3	2.7	3.0	3.8	2.5	3.3
	Journalism (writing)	0.7	0.8	0.7	0.5	0.5	0.5	1.1	1.7	1.3	0.7	0.9	0.8
	Language (modern)	0.3	1.5	0.8	0.8	4.6	2.6	0.7	3.7	1.9	0.6	3.5	1.9
	Language (other)	0.0+	0.1	0.1	0.2	0.4	0.3	0.2	0.5	0.3	0.1	0.4	0.2
	Music	0.9	1.2	1.0	1.?	2.1	1.6	1.3	1.4	1.3	1.1	1.7	1.4
	Philosophy	0.3	0.1	0.2	0.9	0.3	0.6	1.1	0.3	0.7	0.8	0.3	0.5
	Speech and drama	0.9	1.3	1.1	1.1	1.4	1.2	0.6	1.8	1.1	0.9	1.5	1.2
	Theology	0.5	0.3	0.4	0.7	0.3	0.5	0.3	0.1	0.2	0.5	0.2	0.4
	Other	0.5	1.6	1.0	0.5	0.9	0.7	0.7	1.2	0.9	0.6	1.2	0.9
	Biological Science												
	Biology (general)	3.1	1.3	2.4	5.0	2.7	3.9	3.0	1.6	2.5	3.8	2.0	3.0
	Biochemistry	0.1	0.0+	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.2
	Biophysics	0.0+	0.0+	0.0+	0.1	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+
	Botany	0.1	0.0+	0.1	0.2	0.0+	0.1	0.2	0.1	0.2	0.2	0.0+	0.1
	Zoology	0.7	0.2	0.5	0.7	0.2	0.4	2.1	0.9	1.6	1.1	0.4	0.8
	Other	0.6	0.2	0.5	0.2	0.1	0.2	0.6	0.4	0.6	0.5	0.2	0.4
	Business												
	Accounting	4.9	2.4	3.9	3.7	0.9	2.4	4.7	1.2	3.3	4.4	1.4	3.1
	Business administration	13.7	3.5	9.7	11.0	1.5	6.4	12.0	1.7	7.8	12.1	2.1	7.7
	Electronic data processing	3.3	2.5	3.0	0.5	0.2	0.3	0.7	0.3	0.5	1.4	0.8	1.1
	Secretarial studies	0.1	14.8	5.9	0.0+	2.2	1.1	0.0+	2.7	1.2	0.1	5.6	2.5
	Other	2.0	1.8	1.9	1.6	1.0	1.3	3.6	1.4	2.7	2.3	1.3	1.9
	Engineering												
	Aeronautical	2.2	0.0+	1.3	0.5	0.0+	0.3	0.7	0.0+	0.4	1.1	0.0+	0.6
	Civil	1.9	0.0+	1.2	1.3	0.0+	0.7	2.0	0.0+	1.2	1.7	0.0+	1.0
	Chemical	0.2	0.0+	0.1	0.7	0.0+	0.4	1.2	0.1	0.7	0.7	0.0+	0.4
	Electrical	3.4	0.0+	2.1	2.7	0.1	1.4	4.0	0.2	2.4	3.3	0.1	1.9
	Industrial	1.1	0.0+	0.7	1.7	0.0+	0.9	1.1	0.0+	0.7	1.3	0.0+	0.7
	Mechanical	5.3	0.0+	3.2	3.1	0.0+	1.6	3.3	0.1	1.9	3.8	0.0+	2.2
	Other	0.9	0.0+	0.5	1.3	0.0+	0.7	1.3	0.0+	0.8	1.2	0.0+	0.7
	Physical Science												
	Chemistry	0.6	0.4	0.5	2.6	0.7	1.6	2.2	0.5	1.5	1.8	0.5	1.3
	Earth Science	0.7	0.1	0.5	0.6	0.2	0.4	1.0	0.2	0.7	0.8	0.2	0.5
	Mathematics	2.1	1.4	1.8	4.2	3.7	4.0	2.8	3.0	2.9	3.1	2.9	3.0
	Physics	0.5	0.0+	0.3	1.5	0.1	0.8	1.3	0.2	0.9	1.1	0.1	0.7
	Statistics	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+	0.1	0.1	0.1	0.0+	0.0+	0.0+
	Other	0.4	0.0+	0.3	0.3	0.1	0.2	0.5	0.1	0.3	0.4	0.1	0.2
	Professional												
	Health technology (medical, dental, laboratory)	0.8	3.9	2.0	0.1	0.9	0.5	0.2	3.0	1.4	0.4	2.3	1.2
	Nursing	0.4	7.8	3.3	0.1	3.0	1.5	0.0+	6.2	2.6	0.2	5.1	2.3
	Pharmacy	0.5	0.2	0.3	0.2	0.1	0.1	0.7	0.3	0.6	0.4	0.2	0.3
	Predentistry	0.1	0.0+	0.1	0.2	0.1	0.2	0.4	0.2	0.3	0.3	0.1	0.2
	Prelaw	0.5	0.1	0.4	0.4	0.1	0.3	0.6	0.0+	0.4	0.5	0.1	0.3
	Premedical	0.5	0.2	0.4	0.7	0.1	0.4	1.0	0.2	0.7	0.7	0.2	0.5
	Preveterinary	0.3	0.2	0.3	0.2	0.0+	0.1	0.4	0.1	0.3	0.3	0.1	0.2
	Therapy (occupational, physical, speech)	0.5	0.9	0.7	0.2	1.0	0.6	0.3	1.8	0.9	0.3	1.2	0.7
	Other	0.9	2.0	1.3	0.2	0.8	0.5	0.4	1.0	0.7	0.5	1.2	0.8
	Social Science												
	Anthropology	0.3	0.3	0.3	0.4	0.6	0.5	0.5	0.7	0.5	0.4	0.5	0.5
	Economics	0.7	0.1	0.5	2.5	0.8	1.7	3.3	0.4	2.1	2.2	0.5	1.5
	Education	2.8	15.7	7.9	3.0	21.9	12.1	1.7	17.0	8.0	2.5	18.9	9.7
	History	2.2	1.3	1.9	3.3	2.3	2.8	1.9	1.7	1.8	2.5	1.9	2.3
	Political science (government, international relations)	1.7	0.8	1.3	4.2	1.7	3.0	5.0	1.6	3.6	3.7	1.4	2.7
	Psychology	3.7	4.0	3.8	5.4	5.1	5.3	4.3	4.7	4.5	4.6	4.7	4.6
	Social work	0.2	1.4	0.7	0.6	1.3	0.9	0.4	1.7	0.9	0.4	1.4	0.9
	Sociology	3.4	3.9	3.6	3.6	5.7	4.6	2.3	5.0	3.4	3.1	5.0	4.0
	Other	0.8	0.8	0.8	0.8	0.7	0.8	1.0	0.8	0.9	0.9	0.7	0.8
	Other Fields												
	Agriculture	3.3	0.4	2.1	2.3	0.0+	1.2	3.5	0.2	2.2	3.0	0.2	1.8
	Communications (radio, T.V., etc.)	0.8	0.2	0.6	0.4	0.2	0.3	1.5	1.1	1.3	0.8	0.4	0.7
	Electronics (technology)	2.9	0.0+	1.8	0.4	0.0+	0.2	0.4	0.0+	0.3	1.2	0.0+	0.7
	Forestry	1.4	0.0+	0.9	0.5	0.0+	0.2	0.8	0.0+	0.5	0.8	0.0+	0.5
	Home economics	0.0+	3.0	1.?	0.0+	4.2	2.0	0.1	6.6	2.8	0.0+	4.6	2.0
	Industrial arts	2.1	0.0+	1.3	1.6	0.0+	0.8	0.5	0.0+	0.3	1.4	0.0+	0.8
	Library science	0.1	0.5	0.3	0.0+	0.2	0.1	0.0+	0.2	0.1	0.0+	0.3	0.2
	Military science	0.0+	0.0+	0.0+	0.1	0.0+	0.1	0.0+	0.0+	0.0+	0.0+	0.0+	0.0+
	Physical education and recreation	3.0	2.0	2.6	5.4	4.3	4.8	1.7	1.6	1.7	3.5	2.9	3.3
	Other (technical)	2.5	0.7	1.8	0.8	0.1	0.5	0.9	0.4	0.7	1.4	0.3	0.9
	Other (nontechnical)	0.6	0.7	0.6	0.4	0.2	0.3	0.2	0.3	0.3	0.4	0.4	0.4
	Undecided	0.8	0.6	0.7	0.5	0.5	0.5	0.3	0.8	0.5	0.6	0.6	0.6

*Excludes nonrespondents.

1971 Survey Responses of 1967 College Freshmen,
by Sex and Type of Institution in Which Originally Enrolled
(Weighted Percentages)

	Item	Two-Year Colleges			Four-Year Colleges			Universities			Total, All Institutions		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
12(b)	INTENDED GRADUATE SCHOOL FIELD OF STUDY* (GRADUATE SCHOOL ASPIRANTS ONLY)												
	Arts and Humanities												
	Architecture	3.0	0.0+	2.0	0.9	0.4	0.6	1.7	0.3	1.2	1.7	0.3	1.1
	English (literature)	1.0	3.6	1.9	2.4	4.9	3.6	1.5	4.1	2.5	1.8	4.4	2.9
	Fine arts	1.6	2.7	2.0	1.5	3.9	2.7	1.2	3.8	2.2	1.4	3.7	2.4
	History	2.1	0.6	1.6	1.7	0.9	1.3	1.1	1.0	1.0	1.6	0.8	1.3
	Journalism (writing)	0.5	1.1	0.7	0.7	0.8	0.7	0.5	1.7	1.0	0.6	1.1	0.8
	Language (modern)	0.5	1.9	1.0	0.6	2.9	1.7	0.5	2.6	1.3	0.6	2.6	1.4
	Language (other)	0.1	0.4	0.2	0.1	0.4	0.3	0.1	0.2	0.1	0.1	0.3	0.2
	Music	1.5	1.7	1.6	0.9	1.6	1.2	1.0	1.2	1.1	1.1	1.5	1.3
	Philosophy	0.3	0.4	0.4	0.6	0.4	0.5	0.5	0.2	0.4	0.5	0.3	0.4
	Speech and drama	1.1	0.3	0.9	1.0	1.3	1.1	0.5	1.9	1.0	0.9	1.3	1.0
	Theology	0.8	0.6	0.7	2.1	0.4	1.3	1.3	0.2	0.9	1.[illegible]	0.4	1.1
	Other	0.3	1.2	0.6	0.3	1.0	0.6	1.0	2.0	1.4	0.5	1.3	0.9
	Biological Science												
	Biology (general)	1.2	0.5	0.9	0.8	0.8	0.8	0.6	0.6	0.6	0.8	0.7	0.8
	Biochemistry	1.2	0.0+	0.8	0.4	0.4	0.4	0.7	0.5	0.6	0.7	0.4	0.6
	Biophysics	0.3	0.0+	0.2	0.1	0.0+	0.1	0.2	0.1	0.2	0.2	0.0+	0.1
	Botany	0.2	0.0+	0.1	0.3	0.0+	0.2	0.3	0.2	0.2	0.3	0.1	0.2
	Zoology	0.5	0.7	0.6	1.1	0.4	0.8	1.1	0.5	0.8	0.9	0.4	0.7
	Other	0.9	0.4	0.8	1.8	1.0	1.4	1.7	1.3	1.5	1.5	0.9	1.3
	Business												
	Accounting	2.2	0.4	1.6	1.7	0.5	1.2	2.3	0.7	1.7	2.0	0.5	1.4
	Business administration	9.3	1.2	6.5	11.9	1.6	7.1	12.2	1.4	8.0	11.3	1.5	7.2
	Electronic data processing	1.9	0.8	1.5	1.0	0.3	0.7	0.9	0.6	0.8	1.2	0.5	0.9
	Secretarial studies	0.0+	3.7	1.3	0.0+	0.4	0.2	0.0+	0.7	0.3	0.0+	1.1	0.5
	Other	2.6	1.6	2.3	1.2	0.8	1.0	2.0	0.7	1.5	1.9	0.9	1.5
	Engineering												
	Aeornautical	0.7	0.0+	0.5	0.3	0.0+	0.1	0.2	0.0+	0.1	0.4	0.0+	0.2
	Civil	0.8	0.0+	0.6	0.9	0.0+	0.5	1.5	0.0+	0.9	1.1	0.0+	0.6
	Chemical	0.2	0.2	0.2	0.2	0.0+	0.1	0.9	0.2	0.6	0.4	0.1	0.3
	Electrical	2.3	0.1	1.6	1.5	0.0+	0.8	1.9	0.1	1.2	1.9	0.0+	1.1
	Industrial	0.2	0.0+	0.1	0.7	0.0+	0.4	0.3	0.0+	0.2	0.4	0.0+	0.3
	Mechanical	3.8	0.0+	2.5	1.1	0.0+	0.6	1.4	0.0+	0.8	1.9	0.0+	1.1
	Other	1.5	0.0+	1.0	1.5	0.0+	0.8	1.3	0.0+	0.8	1.4	0.0+	0.9
	Physical Science												
	Chemistry	0.2	0.5	0.3	1.6	0.3	1.0	1.4	0.3	1.0	1.2	0.3	0.8
	Earth science	0.7	0.0+	0.4	0.7	0.2	0.5	0.7	0.5	0.6	0.7	0.2	0.5
	Mathematics	1.3	0.9	1.2	2.5	2.2	2.3	1.4	1.2	1.3	1.8	1.6	1.7
	Physics	0.6	0.0+	0.4	1.2	0.0+	0.6	1.0	0.0+	0.6	1.0	0.0+	0.6
	Statistics	0.0+	0.0+	0.0+	0.1	0.4	0.2	0.3	0.1	0.2	0.1	0.2	0.2
	Other	0.3	0.3	0.3	0.7	0.1	0.4	0.7	0.3	0.5	0.6	0.2	0.4
	Professional												
	Health technology (medical, dental, laboratory)	1.6	1.3	1.5	1.3	1.2	1.3	2.0	1.6	1.8	1.6	1.4	1.5
	Nursing	0.1	7.7	2.7	0.0+	2.1	1.0	0.0+	3.7	1.5	0.1	3.6	1.5
	Pharmacy	0.3	0.1	0.2	0.4	0.1	0.2	0.4	0.1	0.3	0.3	0.1	0.2
	Predentistry	0.5	0.0+	0.4	1.1	0.1	0.6	2.1	0.1	1.3	1.2	0.1	0.8
	Prelaw	5.9	0.6	4.1	6.1	1.4	5.0	12.3	2.8	8.6	8.9	1.6	5.9
	Premedical	1.0	0.3	0.8	2.6	0.8	1.8	4.3	1.1	3.0	2.7	0.8	1.9
	Preveterinary	0.3	0.2	0.3	0.2	0.1	0.1	0.3	0.0+	0.2	0.3	0.1	0.2
	Therapy (occupational, physical, speech)	1.0	3.0	1.7	0.7	3.3	1.9	0.4	2.8	1.3	0.7	3.1	1.7
	Other	1.6	3.0	2.1	1.5	1.3	1.4	2.5	2.2	2.4	1.9	1.9	1.9
	Social Science												
	Anthropology	0.2	0.5	0.3	0.3	0.7	0.5	0.5	0.6	0.5	0.3	0.6	0.5
	Economics	1.3	0.2	0.9	1.2	0.3	0.8	1.8	0.5	1.3	1.4	0.3	1.0
	Education	6.0	21.4	11.3	6.6	27.0	16.1	4.3	24.1	12.0	5.7	25.1	13.7
	History	1.2	0.4	0.9	1.8	1.1	1.5	1.0	1.1	1.1	1.4	1.0	1.2
	Political science (government, international relations)	2.2	1.2	1.8	2.0	1.4	1.7	1.7	1.1	1.5	1.9	1.3	1.7
	Psychology	4.0	4.1	4.1	5.1	5.7	5.4	4.0	5.0	4.4	4.5	5.2	4.8
	Social work	1.4	5.5	2.8	2.1	5.0	3.5	1.0	5.1	2.6	1.6	5.1	3.1
	Sociology	3.0	2.8	2.9	1.4	1.7	1.5	1.5	1.8	1.6	1.8	1.9	1.9
	Other	1.1	2.7	1.7	1.5	2.6	2.0	1.4	2.4	1.8	1.4	2.6	1.9
	Other Fields												
	Agriculture	1.2	0.4	0.9	1.9	0.0+	1.0	1.6	0.0+	1.0	1.6	0.1	1.0
	Communications (radio, T.V., etc.)	1.9	0.2	1.3	0.6	0.4	0.5	1.0	0.9	0.9	1.1	0.5	0.8
	Electronics (technology)	1.7	0.0+	1.1	0.1	0.0+	0.1	0.3	0.1	0.2	0.6	0.0+	0.4
	Forestry	1.2	0.1	0.8	0.6	0.0+	0.3	0.7	0.0+	0.4	0.8	0.1	0.5
	Home economics	0.0+	3.7	1.3	0.0+	2.3	1.1	0.0+	2.5	1.0	0.0+	2.6	1.1
	Industrial arts	2.1	0.0+	1.4	0.9	0.0+	0.5	0.3	0.0+	0.2	1.0	0.0+	0.6
	Library science	0.3	1.1	0.6	0.2	2.7	1.4	0.1	2.3	0.9	0.2	2.3	1.1
	Military science	0.2	0.0+	0.1	0.2	0.0+	0.1	0.1	0.0+	0.0+	0.1	0.0+	0.1
	Physical education and recreation	3.2	2.5	2.9	3.9	2.4	3.2	1.2	1.2	1.2	2.9	2.1	2.5
	Other (technical)	1.8	0.4	1.3	1.6	0.6	1.1	1.5	0.5	1.1	1.6	0.5	1.2
	Other (nontechnical)	1.0	0.7	0.9	1.0	1.1	1.1	1.2	1.0	1.1	1.1	1.0	1.0
	Undecided	6.9	9.9	7.9	4.6	6.3	5.4	4.8	6.6	5.5	5.3	7.1	6.0

*Excludes nonrespondents.

1971 Survey Responses of 1967 College Freshmen,
by Sex and Type of Institution in Which Originally Enrolled
(Weighted Percentages)

	Item	Two-Year Colleges			Four-Year Colleges			Universities			Total, All Institutions		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
13	PERCENT REPORTING "AGREE STRONGLY" OR "AGREE SOMEWHAT" WITH STATEMENT *												
	College faculty are more competent than are students to specify the curriculum	65.5	59.6	63.2	63.9	54.0	59.1	67.0	54.6	62.0	65.4	55.7	61.1
	The activities of married women are best confined to the home and family	37.2	23.3	31.7	28.0	13.7	21.0	24.2	10.7	18.7	29.8	15.4	23.5
	Parents should be discouraged from having large families	74.4	67.8	71.8	77.4	75.4	76.3	83.5	82.1	82.9	78.4	75.2	76.9
	Colleges would be improved if organized sports were de-emphasized	30.2	32.1	31.0	33.3	34.3	33.8	38.2	41.5	39.5	33.8	35.7	34.6
	Scientists should publish their findings regardless of the possible consequences	57.6	46.3	53.2	55.6	48.6	52.2	53.3	48.4	51.3	55.5	47.9	52.2
	Realistically, an individual person can do little to bring about changes in our society	41.4	35.9	39.2	40.5	36.7	38.7	39.1	36.5	38.0	40.4	36.4	38.6
	The chief benefit of a college education is that it increases one's earning power	51.1	40.3	46.8	37.9	29.1	33.6	34.1	26.2	30.9	40.9	31.3	36.7
	My beliefs and attitudes are similar to those of most other people my age	61.3	62.8	61.8	59.7	64.0	61.8	58.5	63.3	60.5	59.9	63.5	61.5
	Faculty promotions should be based in part on student evaluations	75.5	76.0	75.6	82.2	84.0	83.1	84.6	85.4	84.9	80.7	82.3	81.5
	Student publications should be cleared by college officials	38.4	43.8	40.5	27.0	26.3	26.7	23.2	26.6	24.6	29.5	31.0	30.2
	Women should be subject to the draft	33.6	22.1	29.0	35.4	25.7	30.7	37.8	28.9	34.2	35.6	25.6	31.2
	College officials have the right to ban persons with extreme views from speaking on campus	35.8	38.8	37.0	25.1	21.0	23.1	21.5	20.6	21.1	27.4	25.6	26.7
	Students from disadvantaged backgrounds should be given preferential treatment in college admissions	36.0	31.2	34.1	39.1	34.6	37.0	40.2	35.4	38.2	38.4	33.9	36.5
	Most college officials have been too lax in dealing with student protests on campus	54.6	55.6	54.9	42.7	36.4	39.6	38.3	33.5	36.3	45.1	40.8	43.2
	Open admissions (admitting anyone who applies) should be adopted by all publicly-supported colleges	46.0	46.0	46.0	37.1	39.0	38.0	33.9	36.0	34.8	38.9	40.0	39.4
	Even if it employs open admissions, a college should award degrees based on the same performance standards for all students	83.7	82.9	83.4	84.6	81.8	83.2	85.4	82.5	84.1	84.5	82.3	83.5
	Open admissions is a good idea because it equalizes opportunities for higher education	61.8	65.0	63.1	54.4	57.5	55.8	51.5	54.5	52.7	55.9	58.7	57.1
	Open admissions is okay, but the students who have high school deficiencies or poor marks should attend separate colleges	34.7	31.1	33.2	33.3	30.4	31.9	32.6	31.3	32.1	33.5	30.8	32.4
	Open admissions is a good idea because it offers many students a chance	77.9	80.3	78.8	71.0	74.3	72.6	69.9	73.6	71.3	72.8	75.6	74.1
	Open admissions lowers the value of a degree	39.3	39.0	39.2	46.5	44.8	45.6	44.7	43.0	44.0	43.7	42.7	43.2
	Open admissions lowers the reputation of a college	41.2	41.9	41.4	49.2	49.0	49.1	49.2	47.1	48.4	46.7	46.5	46.6
	Open admissions discourages applications from outstanding high school graduates	44.7	46.1	45.3	48.6	48.3	48.4	47.3	45.7	46.7	47.0	46.9	47.0
	A student's grades should not be revealed to anyone off campus without his consent	88.9	89.7	89.2	88.0	90.4	89.2	88.1	89.1	88.5	88.3	89.9	89.0
	Students should be more militant in defending their interests	30.1	23.4	27.4	35.5	26.8	31.3	34.5	25.6	30.8	33.5	25.6	30.0
	Students who disrupt the functioning of a college should be expelled or suspended	73.2	70.9	72.2	59.8	56.1	58.1	59.2	55.8	57.8	63.8	60.0	62.2
	Much of what is taught at college is irrelevant to what is going on in the outside world	66.3	63.0	65.1	72.1	71.5	71.8	72.2	71.8	72.1	70.3	69.3	69.8
	Most faculty are strongly interested in the academic problems of undergraduates	47.9	44.9	46.8	46.6	43.2	44.9	39.9	35.6	38.1	45.0	41.6	43.4
	Colleges should be actively engaged in solving social problems	75.0	74.5	74.7	80.6	81.0	80.7	79.1	79.6	79.3	78.4	78.9	78.6
	Most rules governing student behavior at college are sensible	72.6	73.7	73.1	61.5	59.0	60.3	59.5	58.5	59.1	64.4	62.8	63.7
	Most professors don't do much to earn their pay	37.7	35.0	36.6	36.4	36.3	36.3	31.7	30.8	31.3	35.4	34.5	35.0

*Excludes nonrespondents.

1971 Survey Responses of 1967 College Freshmen,
by Sex and Type of Institution in Which Originally Enrolled
(Weighted Percentages)

	Item	Two-Year Colleges			Four-Year Colleges			Universities			Total, All Institutions		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
14	PERCENT REPORTING OBJECTIVE IS "ESSENTIAL" OR "VERY IMPORTANT" *												
	Becoming accomplished in one of the performing arts (acting, dancing, etc.)	7.3	9.1	8.0	7.7	10.0	8.9	7.5	9.7	8.4	7.5	9.7	8.5
	Becoming an authority on a special subject in my subject field	57.8	40.2	50.8	57.5	44.7	51.3	56.2	42.7	50.7	57.2	43.0	51.0
	Obtaining recognition from my colleagues for contributions in my special field	36.6	23.2	31.4	39.4	23.8	31.9	38.4	25.2	33.0	38.2	24.0	32.0
	Becoming an accomplished musician (performer or composer)	6.3	4.5	5.6	6.8	5.6	6.3	6.9	4.8	6.0	6.7	5.2	6.0
	Becoming an expert in finance and commerce	15.1	4.1	10.8	15.8	3.8	10.0	17.0	2.8	11.2	16.0	3.6	10.6
	Having administrative responsibility for the work of others	32.3	17.9	26.7	35.2	15.1	25.5	34.3	16.5	27.0	34.0	16.2	26.3
	Being very well-off financially	37.5	23.7	32.1	35.3	21.4	28.6	34.3	21.8	29.2	35.8	22.1	29.8
	Helping others who are in difficulty	60.7	74.9	66.2	66.7	77.6	72.0	62.3	73.9	67.1	63.5	75.9	68.9
	Participating in an organization like the Peace Corps or Vista	10.7	13.4	11.8	10.4	13.4	11.9	8.6	11.2	9.7	10.0	12.8	11.2
	Becoming an outstanding athlete	10.0	2.7	7.1	10.5	2.8	6.8	7.9	2.0	5.5	9.5	2.5	6.5
	Becoming a community leader	17.7	10.2	14.7	25.5	13.5	19.6	22.8	12.5	18.6	22.3	12.3	17.9
	Making a theoretical contribution to science	8.9	3.4	6.7	11.2	4.1	7.8	10.5	4.2	7.9	10.2	3.9	7.5
	Writing original works (poems, novels, short stories, etc.)	10.6	11.0	10.8	14.4	15.5	14.9	14.2	16.3	15.1	13.2	14.5	13.7
	Never being obligated to people	29.0	28.2	28.6	27.0	24.9	26.0	25.0	22.8	24.1	27.1	25.2	26.3
	Creating artistic work (painting, sculpture, decorating, etc.)	13.3	25.8	18.3	12.8	29.1	20.8	14.8	30.7	21.4	13.6	28.7	20.2
	Keeping up to date with political affairs	48.7	45.8	47.6	56.1	54.3	55.2	55.6	54.3	55.1	53.5	52.1	52.9
	Being successful in a business of my own	45.5	16.3	34.0	37.5	14.6	26.4	40.2	13.1	29.1	40.8	14.7	29.4
	Developing a meaningful philosophy of life	76.8	80.9	78.4	81.8	86.1	83.8	80.6	85.5	82.6	79.8	84.5	81.9
	Having opportunities to be original and creative	65.0	71.9	67.8	72.0	79.2	75.5	72.9	79.2	75.5	70.0	77.3	73.3
	Having a stable, secure future	74.4	81.0	77.0	69.2	71.7	70.4	64.3	66.9	65.3	69.4	72.9	70.9
	Being free from supervision in my work	41.4	31.3	37.4	42.2	34.3	38.3	43.6	35.7	40.4	42.3	33.9	38.7
	Having opportunities to be useful to society	57.2	66.8	61.0	65.8	73.9	69.7	63.4	71.7	66.8	62.4	71.4	66.3
	Having a chance to exercise leadership	45.6	30.8	39.8	54.3	35.4	45.1	51.5	35.1	44.7	50.7	34.0	43.5
	Living and working in the world of ideas	55.4	56.1	55.6	60.2	63.0	61.6	58.1	61.5	59.5	58.0	60.7	59.2
	Working with people rather than things	63.6	80.7	70.3	70.4	84.5	77.3	65.8	81.2	72.1	66.8	82.5	73.7
	Avoiding a high-pressure job	40.2	50.7	44.3	34.9	45.9	40.2	33.7	46.1	38.7	36.2	47.2	41.0
15(a)	NUMBER OF CREDIT HOURS IN PHYSICAL SCIENCES*												
	None	20.8	35.7	26.6	12.6	22.0	17.1	8.9	17.7	12.5	14.0	24.4	18.5
	1 - 4	29.0	28.6	28.8	21.8	29.1	25.3	14.1	22.5	17.6	21.7	27.1	24.1
	5 - 8	21.0	21.0	21.0	23.8	28.5	26.1	21.4	27.2	23.8	22.2	26.2	23.9
	9 - 15	14.3	9.2	12.3	15.5	12.2	13.9	24.0	20.1	22.4	17.7	13.6	15.9
	16 - 27	7.1	2.2	5.2	9.6	4.7	7.3	11.6	7.1	9.8	9.4	4.7	7.4
	More than 27	7.8	3.3	6.1	16.7	3.4	10.3	20.0	5.2	14.0	14.9	3.9	10.2
15(b)	NUMBER OF CREDIT HOURS IN BIOLOGICAL SCIENCES*												
	None	35.1	26.3	31.6	34.3	19.0	26.9	34.1	19.6	28.1	34.5	21.1	28.6
	1 - 4	24.8	20.9	23.3	21.4	28.2	24.7	19.7	20.6	20.0	21.9	24.2	22.9
	5 - 8	20.4	29.6	24.0	20.9	31.0	25.8	17.5	25.1	20.7	19.7	29.0	23.8
	9 - 15	11.1	14.3	12.4	10.7	13.1	11.9	14.9	21.0	17.4	12.1	15.6	13.6
	16 - 27	4.3	4.2	4.3	5.9	4.2	5.1	6.0	6.0	6.0	5.4	4.7	5.1
	More than 27	4.3	4.7	4.5	6.8	4.4	5.6	7.9	7.8	7.8	6.4	5.4	5.9
15(c)	NUMBER OF CREDIT HOURS IN MATHEMATICS*												
	None	11.8	29.4	18.6	11.3	21.0	16.0	10.1	30.5	18.4	11.1	25.8	17.5
	1 - 4	25.9	30.2	27.6	22.2	29.9	25.9	15.4	24.7	19.2	21.3	28.5	24.4
	5 - 8	24.8	26.3	25.4	25.3	28.7	26.9	22.2	22.4	22.3	24.2	26.3	25.1
	9 - 15	22.2	10.2	17.5	20.2	13.4	16.9	27.3	14.8	22.2	23.0	12.9	18.6
	16 - 27	9.9	1.9	6.8	11.9	3.3	7.7	14.8	4.0	10.4	12.2	3.1	8.2
	More than 27	5.3	2.0	4.0	9.0	3.9	6.6	10.2	3.6	7.5	8.2	3.3	6.1
15(d)	NUMBER OF CREDIT HOURS IN SOCIAL SCIENCES*												
	None	8.6	9.6	9.0	3.4	2.7	3.1	4.0	3.1	3.6	5.2	4.6	5.0
	1 - 4	16.7	13.5	15.5	9.5	8.7	9.1	8.7	7.6	8.2	11.5	9.7	10.7
	5 - 8	22.2	20.5	21.6	17.0	14.9	16.0	17.6	12.9	15.7	18.8	15.8	17.5
	9 - 15	26.2	26.7	26.4	26.4	28.9	27.6	27.1	27.3	27.2	26.5	27.9	27.1
	16 - 27	12.2	14.4	13.1	16.8	21.4	19.0	17.9	21.8	19.5	15.7	19.7	17.4
	More than 27	14.1	15.3	14.5	27.0	23.3	25.2	24.6	27.3	25.7	22.2	22.3	22.3
15(e)	NUMBER OF CREDIT HOURS IN ARTS AND HUMANITIES*												
	None	15.8	15.1	15.5	4.3	2.8	3.5	5.4	4.3	5.0	8.2	6.4	7.4
	1 - 4	19.1	13.6	16.9	11.6	6.9	9.3	9.3	6.9	8.3	13.2	8.7	11.2
	5 - 8	22.5	16.8	20.2	16.5	11.1	13.9	17.8	10.5	14.8	18.7	12.4	16.0
	9 - 15	19.2	20.6	19.8	25.3	21.2	23.3	27.1	22.5	25.2	23.9	21.4	22.8
	16 - 27	10.6	14.3	12.1	20.8	21.4	21.1	17.5	19.9	18.4	16.6	19.1	17.7
	More than 27	12.9	19.6	15.5	21.6	36.5	28.8	23.0	35.9	28.3	19.3	32.0	24.8
15(f)	NUMBER OF CREDIT HOURS IN EDUCATION*												
	None	65.7	50.1	59.5	57.6	29.9	44.0	68.9	39.7	56.8	63.5	37.8	52.2
	1 - 4	12.8	11.2	12.2	12.6	10.8	11.7	11.6	11.0	11.4	12.4	11.0	11.8
	5 - 8	6.3	7.9	6.9	7.2	7.3	7.2	6.5	7.9	7.1	6.7	7.6	7.1
	9 - 15	6.4	8.9	7.4	8.9	12.6	10.7	4.7	9.1	6.5	6.9	10.7	8.6
	16 - 27	4.8	9.3	6.6	9.0	18.4	13.6	4.8	13.8	8.5	6.4	14.8	10.1
	More than 27	4.0	12.5	7.4	4.6	21.0	12.7	3.5	18.4	9.7	4.1	18.1	10.3

*Excludes nonrespondents.

1971 Survey Responses of 1967 College Freshmen,
by Sex and Type of Institution in Which Originally Enrolled
(Weighted Percentages)

	Item	Two-Year Colleges			Four-Year Colleges			Universities			Total, All Institutions		
		Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
16	PERCENT REPORTING UNDERGRADUATE EDUCATION WOULD BE IMPROVED IF MEASURE TAKEN												
	All courses were elective	27.6	25.7	26.8	26.5	26.1	26.4	24.8	25.3	25.0	26.4	25.8	26.1
	Grades were abolished	27.5	28.9	28.1	31.3	36.4	33.7	31.3	37.4	33.8	30.1	34.6	32.1
	Course work were more relevant to contemporary life and problems	67.7	72.0	69.4	70.7	78.1	74.3	68.1	76.6	71.6	69.0	76.0	72.0
	More attention were paid to the emotional growth of students	42.6	51.1	45.9	49.9	56.2	53.0	49.7	56.0	52.2	47.5	54.8	50.6
	Students were required to spend a year in community service in the U.S. or abroad	26.7	31.7	28.6	30.6	38.6	34.4	28.5	35.1	31.2	28.7	35.8	31.8
	The college were governed completely by its faculty and students	35.5	29.2	33.1	36.7	34.7	35.8	37.3	36.5	37.0	36.5	33.7	35.3
	There were less emphasis on specialized training and more on broad liberal education	23.7	20.2	22.3	27.2	22.6	25.0	25.3	20.1	23.2	25.5	21.3	23.7

APPENDIX A

1971 Followup Form for 1967 Freshmen

AMERICAN COUNCIL ON EDUCATION

ONE DUPONT CIRCLE
WASHINGTON, D. C. 20036

JULY, 1971

If there are any errors in the address label to the left, mark this circle → ○ and enter your correct name and address in the spaces below.

Your Last Name | First Name | Init.

Street Address

City & State | Zip Code

Dear Member of Our Survey Panel:

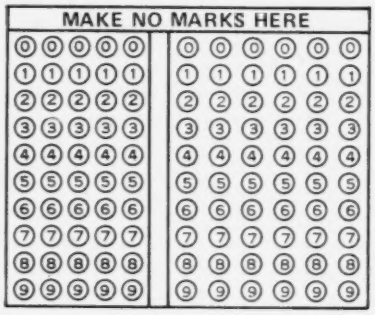
When you first entered college in 1967, you completed a brief information form indicating your educational and career plans. That was the first part of a nationwide survey of what happens to people after they enter college. Now that you have had some college experience, we should greatly appreciate your completing this brief questionnaire and returning it to us in the enclosed envelope. We are interested in your responses even if you attended college for only a very short time. The information you provide will be coded so that you will remain anonymous, and will be used for research purposes only, with your responses held in strict professional confidence. Since we are following up only a limited sample, your participation is very important. Thank you.

Sincerely yours,

Logan Wilson

Logan Wilson, President

MAKE NO MARKS HERE



DIRECTIONS: Your responses will be read by an automatic scanning device. Your careful observance of these few simple rules will be most appreciated:

- Use only black lead pencil (No. 2½ or softer).
- Make heavy black marks that fill the circle completely.
- Erase cleanly any answer you wish to change.
- Make no stray markings of any kind.

EXAMPLE: Will marks made with ball point pen or fountain pen be properly read? Yes ○ No ●

1. Please indicate which of the following applied to you during the period, Jan.–June, 1971, and which you expect to apply during the period, Sept.–Dec., 1971. (Mark as many as apply)

	Jan.-June	Sep.-Dec.
Attending college, full time (undergraduate)	○	○
Attending college, part time (undergraduate)	○	○
Attending graduate school	○	○
Having a temporary college interruption (illness, etc.)	○	○
Attending night school, adult education	○	○
Attending a school other than a college or university	○	○
Working part time	○	○
Working full time	○	○
In military service, active duty	○	○
Being a housewife	○	○
Being unemployed, looking for a job	○	○
Being unemployed, not looking for a job	○	○

2. Who will be your employer this fall? Whom do you expect to be your long-run career employer? (Mark as many as apply)

	During Fall, 1971	Long-run Career Employer
Government:		
Federal (incl. military)	○	○
State and local	○	○
Education:		
Preschool and/or kindergarten	○	○
Elementary school	○	○
Junior high school	○	○
Senior high school	○	○
Junior or community college	○	○
Four-year college or university	○	○
Other non-profit organizations:		
Hospital, clinic	○	○
Social welfare or community agency	○	○
Church	○	○
Other non-profit organization	○	○
Business, industry and services:		
Self-employed	○	○
Small company (up to 1000 employees)	○	○
Large company (more than 1000 employees)	○	○
Other (incl. student, housewife)	○	○
None (do not plan to work)	○	○

3. Which of the following job activities do you expect to be doing:

A. in the fall of 1971?
B. in your long-run career?

(Mark as many as apply)

	Fall, 1971	Long-run Career
Teaching	Ⓐ	Ⓑ
Research	Ⓐ	Ⓑ
Administration	Ⓐ	Ⓑ
Sales	Ⓐ	Ⓑ
Service to clients or patients	Ⓐ	Ⓑ
None of the above (e.g., studying, homemaking)	Ⓐ	Ⓑ

4. What is your probable career occupation? (Mark one)

- ◯ Accountant or actuary
- ◯ Actor or entertainer
- ◯ Architect
- ◯ Artist
- ◯ Business (clerical)
- ◯ Business executive
- ◯ Business owner or proprietor
- ◯ Business salesman or buyer
- ◯ Clergyman (minister, priest)
- ◯ Clergy (other religious)
- ◯ Clinical psychologist
- ◯ College teacher
- ◯ Computer programmer
- ◯ Conservationist or forester
- ◯ Dentist (including orthodontist)
- ◯ Dietitian or home economist
- ◯ Engineer
- ◯ Farmer or rancher
- ◯ Foreign Service worker (including diplomat)
- ◯ Housewife
- ◯ Interior decorator/designer
- ◯ Interpreter (translator)
- ◯ Lab technician or hygienist
- ◯ Law enforcement officer
- ◯ Lawyer (attorney)
- ◯ Military service (career)
- ◯ Musician (performer, composer)
- ◯ Nurse
- ◯ Optometrist
- ◯ Pharmacist
- ◯ Physician
- ◯ School counselor
- ◯ School principal/superintendent
- ◯ Scientific researcher
- ◯ Social worker
- ◯ Statistician
- ◯ Therapist (physical, occupational, speech)
- ◯ Teacher (elementary)
- ◯ Teacher (secondary)
- ◯ Veterinarian
- ◯ Writer or journalist
- ◯ Skilled trades
- ◯ Other
- ◯ Undecided

5. Where will you most likely be living and working in the fall of 1971? (Mark one in each column)

	Living	Working
On a farm	(L)	(W)
In a small town	(L)	(W)
In a moderate or large size town or city	(L)	(W)
In a metropolitan area, central city	(L)	(W)
In a metropolitan area, suburb	(L)	(W)

6. How important are each of the following reasons for your career choice? (Mark one in each row)

	Very Important	Somewhat Important	Not Important
Job openings are generally available	(V)	(S)	(N)
I enjoy working with the kind of people involved	(V)	(S)	(N)
This is a well-paying career	(V)	(S)	(N)
Persons in this career are less vulnerable to military service	(V)	(S)	(N)
This choice satisfies my parents' hopes	(V)	(S)	(N)
I feel this enables me to make an important contribution to society	(V)	(S)	(N)
There are opportunities for rapid career advancement	(V)	(S)	(N)
There are opportunities for freedom of action	(V)	(S)	(N)

7. How have you financed your college and living expenses as an undergraduate? If you plan to attend graduate school, how do you expect to finance it? (Mark as many as apply)

Sources	Undergraduate	Graduate
Support from your parents	(U)	(G)
Support from your spouse	(U)	(G)
Federal scholarship, fellowship, or grant	(U)	(G)
State scholarship, fellowship, or grant	(U)	(G)
Other scholarship, fellowship, or grant	(U)	(G)
Federal loan	(U)	(G)
Other loan	(U)	(G)
College work-study program	(U)	(G)
Research assistantship	(U)	(G)
Teaching assistantship	(U)	(G)
Employment	(U)	(G)
Other sources (savings, etc.)	(U)	(G)

8. Which of the following have you done since entering college in 1967? (Mark as many as apply)

- Got married ◯
- Changed major field ◯
- Changed career choice ◯
- Failed one or more courses ◯
- Graduated with honors ◯
- Was elected to a student office ◯
- Joined a social fraternity, sorority, or club ◯
- Authored or co-authored a published article ◯
- Was elected to an academic honor society ◯
- Participated in student protests or demonstrations ◯
- Dropped out of college temporarily (exclude transferring) ◯
- Dropped out of college permanently ◯
- Transferred to another college before graduating ◯

9. What is the highest degree you now hold and what are your future degree plans? (Mark one in each column)

	A. Now hold	B. Plan to get before 1973	C. Plan to get 1973–1975	D. Plan to get after 1975
None	(A)	(B)	(C)	(D)
Associate (or equivalent) (A.A., A.S., etc.)	(A)	(B)	(C)	(D)
Bachelor's Degree (A.B., B.A., B.S., etc.)	(A)	(B)	(C)	(D)
Master's Degree (M.A., M.S., etc.)	(A)	(B)	(C)	(D)
Ph.D. or Ed.D.	(A)	(B)	(C)	(D)
M.D., D.D.S., D.V.M. or D.O.	(A)	(B)	(C)	(D)
LL.B. or J.D. (Law)	(A)	(B)	(C)	(D)
B.D. (Divinity)	(A)	(B)	(C)	(D)
Other	(A)	(B)	(C)	(D)

10. How often have you discussed vocational and career plans or a possible change in major field with each of the following persons? (Mark one in each row)

	Frequently	Occasionally	Never
College advisor	(F)	(O)	(N)
Academic dean	(F)	(O)	(N)
Residence hall counselor	(F)	(O)	(N)
Guidance counselor	(F)	(O)	(N)
Friend	(F)	(O)	(N)
Professor or instructor	(F)	(O)	(N)
Placement counselor or director	(F)	(O)	(N)
Family member or spouse	(F)	(O)	(N)
Dean of men or women	(F)	(O)	(N)
Counselor in non-university agency	(F)	(O)	(N)
Person employed in my intended field	(F)	(O)	(N)
Other	(F)	(O)	(N)

11. What was your undergraduate grade-point average for the entire time you attended college? (Mark one in each column)

	A. Over-all	B. In major subject
3.75–4.00 (A or A+)	(A)	(B)
3.25–3.74 (A- or B+)	(A)	(B)
2.75–3.24 (B)	(A)	(B)
2.25–2.74 (B- or C+)	(A)	(B)
1.75–2.24 (C)	(A)	(B)
1.25–1.74 (C- or D+)	(A)	(B)
Less than 1.25 (D or less)	(A)	(B)

12. Below is a list of 66 different academic fields grouped into general categories. Mark only three of the 66 fields as follows:

① Current or last undergraduate major field of study
② Current or last undergraduate minor field of study
Ⓖ Graduate major field (complete if you are enrolled, or plan to enroll, in graduate studies; otherwise, omit)

Arts and Humanities
① ② Ⓖ Architecture
① ② Ⓖ English (literature)
① ② Ⓖ Fine arts
① ② Ⓖ History
① ② Ⓖ Journalism (writing)
① ② Ⓖ Language (modern)
① ② Ⓖ Language (other)
① ② Ⓖ Music
① ② Ⓖ Philosophy
① ② Ⓖ Speech and drama
① ② Ⓖ Theology
① ② Ⓖ Other

Biological Science
① ② Ⓖ Biology (general)
① ② Ⓖ Biochemistry
① ② Ⓖ Biophysics
① ② Ⓖ Botany
① ② Ⓖ Zoology
① ② Ⓖ Other

Business
① ② Ⓖ Accounting
① ② Ⓖ Business Admin.
① ② Ⓖ Electronic Data Processing
① ② Ⓖ Secretarial studies
① ② Ⓖ Other

Engineering
① ② Ⓖ Aeronautical
① ② Ⓖ Civil
① ② Ⓖ Chemical
① ② Ⓖ Electrical
① ② Ⓖ Industrial
① ② Ⓖ Mechanical
① ② Ⓖ Other

Physical Science
① ② Ⓖ Chemistry
① ② Ⓖ Earth Science
① ② Ⓖ Mathematics
① ② Ⓖ Physics
① ② Ⓖ Statistics
① ② Ⓖ Other

Professional
① ② Ⓖ Health Technology (medical, dental, laboratory)
① ② Ⓖ Nursing
① ② Ⓖ Pharmacy
① ② Ⓖ Predentistry
① ② Ⓖ Prelaw
① ② Ⓖ Premedical
① ② Ⓖ Preveterinary
① ② Ⓖ Therapy (occupat., physical, speech)
① ② Ⓖ Other

Social Science
① ② Ⓖ Anthropology
① ② Ⓖ Economics
① ② Ⓖ Education
① ② Ⓖ History
① ② Ⓖ Political science (government, int. relations)
① ② Ⓖ Psychology
① ② Ⓖ Social work
① ② Ⓖ Sociology
① ② Ⓖ Other

Other Fields
① ② Ⓖ Agriculture
① ② Ⓖ Communications (radio, T.V., etc.)
① ② Ⓖ Electronics (technology)
① ② Ⓖ Forestry
① ② Ⓖ Home economics
① ② Ⓖ Industrial arts
① ② Ⓖ Library science
① ② Ⓖ Military science
① ② Ⓖ Physical education and recreation
① ② Ⓖ Other (technical)
① ② Ⓖ Other (nontechnical)
① ② Ⓖ Undecided

Please be sure that only three circles have been marked in the above list.

13. Mark one in each row: Agree strongly / Agree somewhat / Disagree somewhat / Disagree strongly

	Agree strongly	Agree somewhat	Disagree somewhat	Disagree strongly
College faculty are more competent than are students to specify the curriculum	○	○	○	○
The activities of married women are best confined to the home and family	○	○	○	○
Parents should be discouraged from having large families	○	○	○	○
Colleges would be improved if organized sports were de-emphasized	○	○	○	○
Scientists should publish their findings regardless of the possible consequences	○	○	○	○
Realistically, an individual person can do little to bring about changes in our society	○	○	○	○
The chief benefit of a college education is that it increases one's earning power	○	○	○	○
My beliefs and attitudes are similar to those of most other people my age	○	○	○	○
Faculty promotions should be based in part on student evaluations	○	○	○	○
Student publications should be cleared by college officials	○	○	○	○
Women should be subject to the draft	○	○	○	○
College officials have the right to ban persons with extreme views from speaking on campus	○	○	○	○
Students from disadvantaged social backgrounds should be given preferential treatment in college admissions	○	○	○	○
Most college officials have been too lax in dealing with student protests on campus	○	○	○	○
Open admissions (admitting anyone who applies) should be adopted by all publicly-supported colleges	○	○	○	○
Even if it employs open admissions, a college should award degrees based on the same performance standards for all students	○	○	○	○
Open admissions is a good idea because it equalizes opportunities for higher education	○	○	○	○
Open admissions is okay, but the students who have high school deficiencies or poor marks should attend separate colleges	○	○	○	○
Open admissions is a good idea because it offers many students a chance	○	○	○	○
Open admissions lowers the value of a degree	○	○	○	○
Open admissions lowers the reputation of a college	○	○	○	○
Open admissions discourages applications from outstanding high school graduates	○	○	○	○
A student's grades should not be revealed to anyone off campus without his consent	○	○	○	○
Students should be more militant in defending their interests	○	○	○	○
Students who disrupt the functioning of a college should be expelled or suspended	○	○	○	○
Much of what is taught at college is irrelevant to what is going on in the outside world	○	○	○	○
Most faculty are strongly interested in the academic problems of undergraduates	○	○	○	○
Colleges should be actively engaged in solving social problems	○	○	○	○
Most rules governing student behavior at college are sensible	○	○	○	○
Most professors don't do much to earn their pay	○	○	○	○

14. Indicate the importance to you personally of each of the following: (Mark one for each item)

	Essential	Very Important	Somewhat Important	Not Important
Becoming accomplished in one of the performing arts (acting, dancing, etc.)	E	V	S	N
Becoming an authority on a special subject in my subject field	E	V	S	N
Obtaining recognition from my colleagues for contributions in my special field	E	V	S	N
Becoming an accomplished musician (performer or composer)	E	V	S	N
Becoming an expert in finance and commerce	E	V	S	N
Having administrative responsibility for the work of others	E	V	S	N
Being very well-off financially	E	V	S	N
Helping others who are in difficulty	E	V	S	N
Participating in an organization like the Peace Corps or Vista	E	V	S	N
Becoming an outstanding athlete	E	V	S	N
Becoming a community leader	E	V	S	N
Making a theoretical contribution to science	E	V	S	N
Writing original works (poems, novels, short stories, etc.)	E	V	S	N
Never being obligated to people	E	V	S	N
Creating artistic work (painting, sculpture, decorating, etc.)	E	V	S	N
Keeping up to date with political affairs	E	V	S	N
Being successful in a business of my own	E	V	S	N
Developing a meaningful philosophy of life	E	V	S	N
Having opportunities to be original and creative	E	V	S	N
Having a stable, secure future	E	V	S	N
Being free from supervision in my work	E	V	S	N
Having opportunities to be useful to society	E	V	S	N
Having a chance to exercise leadership	E	V	S	N
Living and working in the world of ideas	E	V	S	N
Working with people rather than things	E	V	S	N
Avoiding a high-pressure job	E	V	S	N

15. How many college credit hours of work have you had in the following subjects? (Mark one in each row)

	None	1–4	5–8	9–15	16–27	More Than 27
Physical sciences	○	○	○	○	○	○
Biological sciences	○	○	○	○	○	○
Mathematics	○	○	○	○	○	○
Social sciences	○	○	○	○	○	○
Arts and humanities	○	○	○	○	○	○
Education	○	○	○	○	○	○
Elementary school practice teaching	○	○	○	○	○	○
Secondary school practice teaching	○	○	○	○	○	○

16. Undergraduate education in America would be improved if: (Mark as many as apply)

- All courses were elective ○
- Grades were abolished ○
- Course work were more relevant to contemporary life and problems ○
- More attention were paid to the emotional growth of students ○
- Students were required to spend a year in community service in the U. S. or abroad ○
- The college were governed completely by its faculty and students ○
- There were less emphasis on specialized training and more on broad liberal education ○

NOTE: IF YOU ARE (OR PLAN TO BE AT ANY TIME) AN ELEMENTARY OR SECONDARY SCHOOL TEACHER, PLEASE ANSWER THE FOLLOWING ITEMS. (Otherwise, you have finished; please return your questionnaire in the envelope provided. Thank you.)

17A. When do you plan (or hope) to start teaching? (Mark one)

- I have already started on a full-time job (skip to item 18) ○
- I have already started on a part-time job (skip to item 18) ○
- This year, on a full-time basis ○
- This year, on a part-time basis ○
- In one to three years ○
- Some time later ○

B. Have you applied for a teaching position? (Mark one)

- Yes, to one school system and received a contract ○
- Yes, to more than one school system and received a contract ○
- Yes, to one school system, but received no contract ○
- Yes, to more than one school system, but received no contract ○
- No, because I am not yet qualified ○
- No, because I know that teaching jobs are scarce ○
- No, for other reasons ○

18. How long a teaching career do you anticipate? (Mark one)

- Less than two years ○
- Two to five years ○
- More than five years, but not the rest of my working life ○
- Most of my working life ○

19. Which of the following kinds of pupils do you expect to be in the majority of those you teach on your first job? Which would you most prefer to teach? (Mark one in each column)

	Expect To Teach	Prefer To Teach
White/Caucasian	E	P
Black/Negro/Afro-American	E	P
American Indian	E	P
Oriental	E	P
Mexican-American/Chicano	E	P
Puerto Rican	E	P
Other	E	P
Don't know	E	P

20. Which of the following kinds of pupils are you trained to teach, expect to teach, prefer to teach, and feel prepared to teach? (Mark as many as apply)

Trained	Expect	Prefer	Feel Prepared	
T	E	P	F	Mentally retarded children
T	E	P	F	Physically handicapped children
T	E	P	F	Emotionally disturbed children
T	E	P	F	Exceptionally bright children
T	E	P	F	Highly creative children
T	E	P	F	Socially/economically disadvantaged children
T	E	P	F	Bilingual children
T	E	P	F	Preschool children
T	E	P	F	Adults
T	E	P	F	None of the above

APPENDIX B

Precision of the Data and Their Comparisons

APPENDIX B

Precision of the Data and Their Comparisons*

So far as random errors are concerned, the standard error of a categorical percentage is a function of that percentage and of the number of participants (unweighted) in the group. Approximate standard errors for various levels of item response percentages and group sizes are presented in Table B-1. In comparisons involving item response percentages for independent groups or for changes in the cohorts over time, the standard error of the difference is approximately equal to the square root of the sum of the squared sampling errors. Allowance for finite sampling and stratification reduces values somewhat. Nevertheless, the tabled values should be regarded as lower-bound estimates of sampling errors because subjects were sampled within institutions participating in the 1967 freshman survey (two-stage sampling with an error component at each stage). Although the weighting procedures minimize known sources of systematic bias, the data are also subject to some unknown degree of constant and nonrandom variable errors, in part attributable to the imposing of quality control conditions for inclusion in national normative tabulations.

Table B-1

Standard Errors of Categorical Response[a] Percentages for Groups of Various Size

Number of Actual[b] Participants in Group	1% or 99%	10% or 90%	25% or 75%	50%
2,500	.199	.600	.866	1.000
5,000	.141	.424	.612	.707
7,500	.115	.347	.500	.577
10,000	.100	.300	.433	.500
25,000	.063	.190	.274	.316
50,000	.044	.134	.194	.224

[a]Assumes simple random sampling of students from an infinite population.

[b]To determine, see Table 2, columns 1 through 3.

*Revised and adapted from the ACE Office of Research Staff (1972, pp. 93-94).

References

References

ACE Office of Research Staff. The American Freshman: National Norms for 1972. ACE Research Reports, Vol. 7, No. 5. Washington: American Council on Education, 1972.

Astin, Alexander W. College Dropouts: A National Profile. ACE Research Reports, Vol. 7, No. 1. Washington: American Council on Education, 1972.

Astin, Alexander W. The College Environment. Washington: American Council on Education, 1968.

Astin, Alexander W. Manual for the Inventory of College Activities. Minneapolis: National Computer Systems, 1970.

Astin, Alexander W. Who Goes Where to College? Chicago: Science Research Associates, 1965.

Astin, Alexander W., and Panos, Robert J. The Educational and Vocational Development of College Students. Washington: American Council on Education, 1969.

Bayer, Alan E. "College Impact on Marriage," Journal of Marriage and the Family, Vol. 34, No. 4 (November, 1972), pp. 600-609.

Bayer, Alan E., Astin, Alexander W., Boruch, Robert F., and Creager, John A. Users' Manual: ACE Higher Education Data Bank. ACE Research Reports, Vol. 4, No. 1. Washington: American Council on Education, 1969.

Bayer, Alan E., Drew, David E., Astin, Alexander W., Boruch, Robert F., and Creager, John A. The First Year of College: A Follow-up Normative Report. ACE Research Reports, Vol. 5, No. 1. Washington: American Council on Education, 1970.

References (Continued)

Drew, David E., and Astin, Alexander W. "Undergraduate Aspirations: A Test of Several Theories," American Journal of Sociology, Vol. 77, No. 6 (May, 1972), pp. 1151-64.

Eckland, Bruce K. "Social Class and College Graduation: Some Misconceptions Corrected," American Journal of Sociology, Vol. 70, No. 1 (July, 1964a), pp. 36-50.

Eckland, Bruce K. "A Source of Error in College Attrition Studies," Sociology of Education, Vol. 38, No. 1 (Fall, 1964b), pp. 60-72.

Feldman, Kenneth A. and Newcomb, Theodore M. The Impact of College on Students (Two Volumes). San Francisco: Jossey-Bass, 1969.

Folger, John K., Astin, Helen S., and Bayer, Alan E. Human Resources and Higher Education. New York: Russell Sage, 1970.

Kent, Laura P. The ACE Office of Research: Its Purposes and Activities. Washington: American Council on Education, 1972.

Knoell, Dorothy. "Needed Research on College Dropouts," in Montgomery, James (ed.), College Dropouts, Cooperative Research Project F-065. Knoxville: University of Tennessee, 1964.

Panos, Robert J. and Astin, Alexander W. "Attrition Among College Students," American Educational Research Journal, Vol. 5, No. 1 (January, 1968), pp. 57-72.

Panos, Robert J., Astin, Alexander W., and Creager, John A. National Norms for Entering College Freshmen -- Fall 1967. ACE Research Reports, Vol. 2, No. 7. Washington: American Council on Education, 1967.

Schoenfeldt, Lyle F., Bayer, Alan E., and Brown, Marsha D. "Delayed and Normal Progress College Students: A Comparison of Psycho-Social Characteristics and Career Plans," American Educational Research Journal, Vol. 7, No. 2 (March, 1970), pp. 235-250.

References (Continued)

Sewell, William H. and Shah, Vimal P. "Socioeconomic Status, Intelligence, and the Attainment of Higher Education," Sociology of Education, Vol. 40, No. 1 (Winter, 1967), pp. 1-23.

Other Recent Publications by the Staff of the Office of Research
American Council on Education
(ACE)

Astin, A. W. **College Dropouts: A National Profile.** ACE Research Reports, Vol. 7, No. 1. Washington: ACE, 1972.

Astin, A. W. *College-going and Human Development.* **Change, 4** (September 1972), 11, 62.

Astin, A. W. **Predicting Academic Performance in College.** New York: Free Press, 1971.

Astin, A. W. *The Measured Effects of Higher Education.* **The Annals, 404** (November 1972), 1-20.

Astin, A. W., and Lee, C. B. T. **The Invisible Colleges.** Carnegie Commission Series on Higher Education. New York: McGraw-Hill Book Co., 1971.

Astin, H. S., Astin, A. W., Bisconti, A. S., and Frankel, H. H. **Higher Education and the Disadvantaged Student.** Washington: Human Service Press, 1972.

Astin, H. S., and Bayer, A. E. *Sex Discrimination in Academe.* **Educational Record, 53** (Spring 1972), 101-118.

Bayer, A. E. *Construction of a Race Item for Survey Research.* **Public Opinion Quarterly, 36** (Winter 1972-73), 592-602.

Bayer, A. E., Kent, L. P., and Dutton, J. E. *Children of Clergymen: Do They Fit the Stereotype?* **The Christian Century, 89** (June 1972), 708-713.

Bayer, A. E. **The Black College Freshman: Characteristics and Recent Trends.** ACE Research Reports, Vol. 7, No. 3. Washington: ACE, 1972.

Bayer, A. E. *College Impact on Marriage.* **Journal of Marriage and the Family, 34** (November 1972), 600-609.

Boruch, R. F., and Creager, J. A. **Measurement Error in Social and Educational Survey Research.** ACE Research Reports, Vol. 7, No. 2. Washington: ACE, 1972.

Creager, J. A. *Academic Achievement and Institutional Environments: Two Research Strategies.* **Journal of Experimental Education, 40** (Winter 1971), 9-23.

Creager, J. A. *Futurism in Higher Education.* **Change, 4** (Winter 1972), 8, 62.

Creager, J. A. **The American Graduate Student: A Normative Description.** ACE Research Reports, Vol. 6, No. 5. Washington: ACE, 1971.

Drew, D. E. *Jewish Students Today: Radical or Conservative?* **Transaction, 8** (October 1971), 45-48.

Drew, D. E. *The Potential Impact of Longitudinal Research on Decision Making in Higher Education.* **Journal of Educational Data Processing, 9** (Winter 1971-72), 30-35.

Drew, D. E., and Astin, A. W. *Undergraduate Aspirations: A Test of Several Theories.* **The American Journal of Sociology, 77** (May 1972), 1151-64.

Drew, D. E., and Creager, J. A. **The Vietnam-Era Veteran Enters College.** ACE Research Reports, Vol. 7, No. 4. Washington: ACE, 1972.

Higher Education Panel Survey. *Faculty Tenure and Contract Systems: Current Practice.* Summer, 1972. Mimeographed.

Higher Education Panel Survey. *Expected First-Year Graduate Enrollment in Science and Engineering, Fall, 1972.* Summer, 1972. Mimeographed.

Higher Education Panel Survey. *Student Participation on Institutional Governing Boards.* Fall, 1972. Mimeographed.

Holmstrom, E. I. *Teachers in Vocational-Technical Education.* **Science Education News,** (October 1971), 5-7.

Karabel, J. B. *Perspectives on Open Admissions.* **Educational Record, 53** (Winter 1972), 30-44.

Staff of the Office of Research. **The American Freshman: National Norms for Fall 1972.** ACE Research Reports, Vol. 7, No. 5. Washington: ACE, 1972.